THE AMERICAN UNIVERSITY

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GRADUATE SCHOOL

Catalog Issue 1962-1964

WASHINGTON / DISTRICT OF COLUMBIA

The administrative offices of the Graduate School are located at the Downtown Center of the University, 1901 F Street, N.W.

Academic Calendar

FALL SESSION

1962-1963

Classes begin	September 17
Veterans Day holiday	November 12
Thanksgiving recess	November 22-23
Christmas vacation	December 20-January 2
Fall session ends	January 26

1963-1964

Classes begin	September 16
Thanksgiving recess	November 28-December 1
Christmas vacation	December 20-January 2
Fall Semester ends	January 25

SPRING SESSION

1962-1963

Classes begin	February 4
Washington's Birthday holiday	February 22
Spring vacation	April 7-14
Memorial Day holiday	May 30
University forty-ninth annual Commencement	June 9

1963-1964

Classes begin	February 3
Washington's Birthday holiday	February 22
Spring vacation	March 22-29
Memorial Day holiday	May 30
University fiftieth annual Commencement	June 7

SUMMER SESSION

Class dates are announced in the Summer Session Bulletin published each March.

Students are requested to see each Session Bulletin published prior to the session for a more detailed schedule. Any changes or adjustments necessary in the academic calendar above will be noted in the Session Bulletin.

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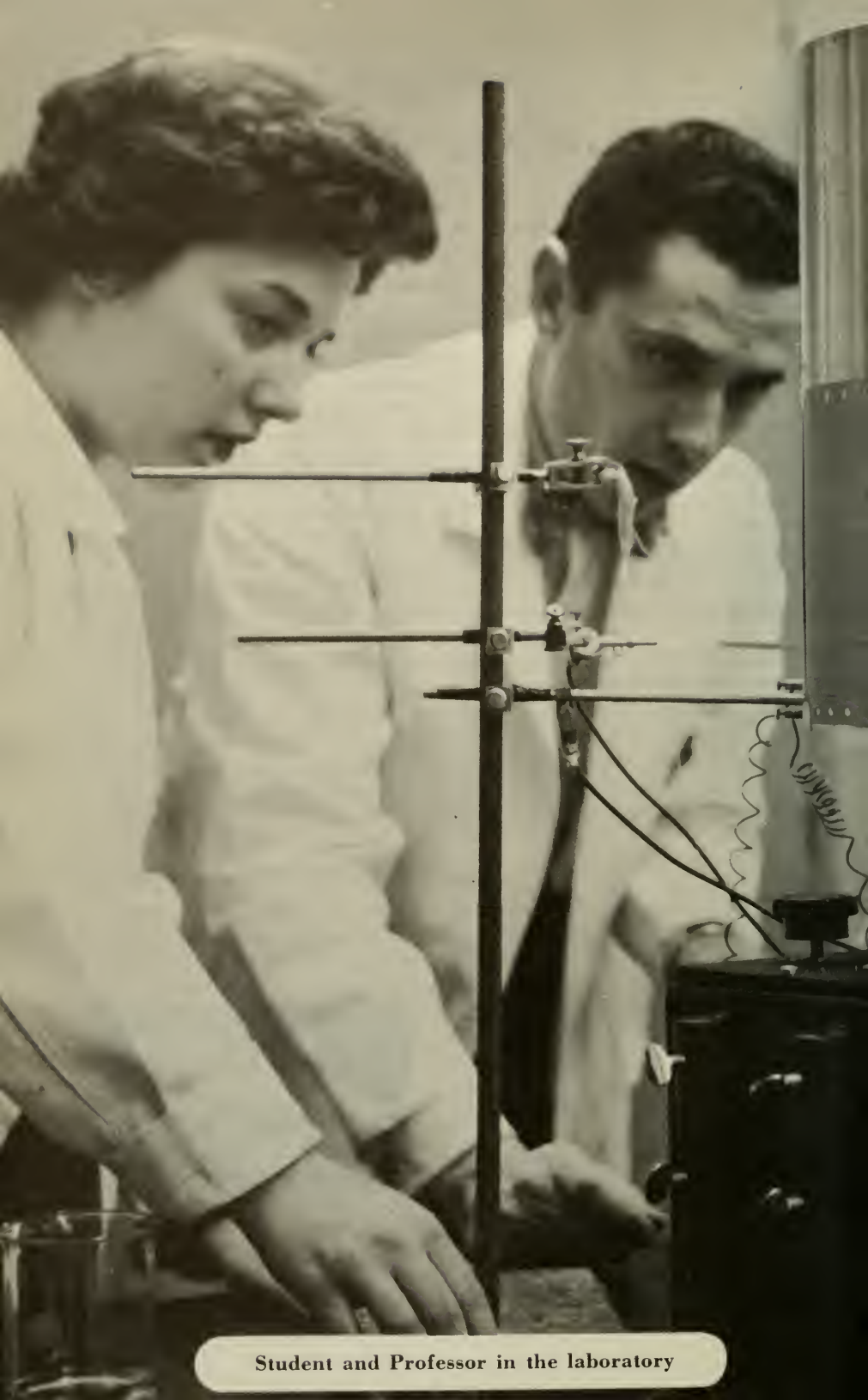

Student and Professor in the laboratory

Anthropology

(See Sociology and Anthropology)

Art

(See Fine and Applied Arts)

Biology

Faculty Offering Graduate Courses

Professors: SUMNER O. BURHOE (Chairman); ALFRED B. CHAET. *Associate Professor:* MARTHA C. SAGER. *Assistant Professor:* PAUL R. CURTIS. *Adjunct Professor:* HERBERT SEVERSMITH. *Professorial Lecturers:* ROSS C. MCCARDLE; LESTER HARRIS. *Lecturer:* JOSEPH C. HWANG.

Graduate Degree Programs

Degrees of MASTER OF SCIENCE IN BIOLOGY and MASTER OF SCIENCE IN SCIENCE TEACHING

Master of Science in Biology

Course Requirements: Minimum of 30 hours of approved graduate work, six hours of which are to be in 9.797 Master's Thesis Research.
Written Comprehensive Examinations: Two, selected from the following: Bacteriology, Botany, Embryology, Genetics, Physiology, Zoology.
Other Requirements: Reading proficiency in technical German, French, or Russian; thesis based on 9.797 Master's Thesis Research; and oral defense of thesis.

Master of Science in Science Teaching

See page 70 for requirements for this degree.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students)

9.503 General Entomology (4)
9.514 Animal Histology (4)
9.517 Bio-Ecology (4)
9.518 Parasitology (4)
9.521 Modern Advances in Genetics (3)

9.530 Biological Designs I (4)
9.531 Biological Designs II (4)
9.532 Advanced Bacteriology (4)
9.560 Endocrinology (4)
9.562 Comparative Physiology (4)
9.616 Plant Physiology (4)
9.620 Experimental Embryology (4)
9.621 Advanced Genetics (4)
9.632 Bacterial Genetics (4)
9.664 Cellular Physiology
9.797 Master's Thesis Seminar (3-6)

Chemistry

Faculty Offering Graduate Courses

Professor: Leo Schubert (Chairman); *Associate Professors:* Mary H. Aldridge; Bernard Miller; James S. Swinehart. *Adjunct Professors:* Daniel Banes; Frank S. Grimaldi; Wilfrid Mann. *Professorial Lecturers:* Irving Breger; Andrej Macek; John K. Taylor; William A. Zisman. *Lecturers:* Jules A. Gladner; Lawrence M. Kushner; Ti Li Loo; Alan H. Mehler; Rex Neihof; Helen M. Ondik; Jean Rotherham; Benton B. Westfall; William J. Whelan. *Adjunct Research Professors:* Eduard Farber; Alfred Weissler. *Laboratory Associate:* Stephen Hopkins.

Graduate Degree Programs

Degrees of master of science in chemistry and master of science in science teaching.

Master of Science in Chemistry

Course Requirements: Minimum of 30 credit hours of approved graduate work, six of which must be in 15.797 Master's Thesis Seminar.

Written Comprehensive Examinations: Two, selected from Inorganic Chemistry, (including Qualitative Analysis), Quantitative Analysis, Organic Chemistry, Physical Chemistry, and Biochemistry. A student may not select both Organic Chemistry and Biochemistry.

Other Requirements: Proficiency examinations in technical German, Russian, or French; thesis with oral defense.

Master of Science in Science Teaching

See page 70 for requirements for this degree.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students: 600- and 700-level courses are open only to graduate students)

15.500 Physical Chemistry I (4)
15.501 Physical Chemistry II (4)
15.507 Chemical Literature (1)
15.510 Advanced Inorganic Analytical Chemistry (3)
15.513 Electroanalytical Chemistry (3)
15.519 Inorganic Preparations (3)
15.520 Advanced Organic Chemistry I (3)
15.521 Advanced Organic Chemistry II (3)
15.522 Qualitative-Organic Analysis (3)
15.523 Organic Preparations (3)
15.526 Heterocyclic Compounds (3)
15.528 Quantitative Organic Analysis (3)
15.530 Physical Organic Chemistry (3)
15.532 High Polymer Chemistry I (3)
15.533 High Polymer Chemistry II (3)
15.540 Colloid and Surface Chemistry (3)
15.542 Chemical Kinetics (2)
15.543 Atomic and Molecular Spectra (3)
15.544 Molecular Structure (3)
15.546 Thermodynamics (3)
15.548 Heterogeneous Equilibria (3)
15.550 Advanced Inorganic Chemistry I (3)
15.551 Advanced Inorganic Chemistry II (3)
15.556 Radiochemistry (3)
15.560 Biochemistry I (4)
15.561 Biochemistry II (4)
15.562 Chemistry of Organic Drugs (3)
15.563 Enzyme Chemistry (3)
15.565 Physical Biochemistry (3)
15.566 Proteins and Amino Acids (3)
15.570 Structure of Metals (3)
15.797 Master's Thesis Seminar (3-6)

Earth Sciences

Faculty Offering Graduate Courses

Professors: John W. Frey; Matthew F. Norton (Chairman); *Adjunct Professor:* George S. Switzer. *Professorial Lecturers:* Paul S. Bauer; Irving Breger. *Lecturer:* Isidore Zietz.

Graduate Degree Programs

Degrees of MASTER OF SCIENCE IN EARTH SCIENCES and MASTER OF SCIENCE IN SCIENCE TEACHING.

Master of Science in Earth Sciences

Course Requirements: A minimum of 30 credit hours of approved graduate work, 3 or 6 hours of which may be in 27.797 Thesis Research.

Written Comprehensive Examinations: Two comprehensive examinations are required. One must be General Earth Sciences; the second is to be chosen from one of the following three fields: Earth Sciences: Biological; Earth Sciences: Chemical; Earth Sciences: Physical.

Other Requirements: Reading proficiency in French, German, or Russian as evidenced (1) by satisfactory completion of an intermediate level course or, lacking this, (2) by a proficiency examination; thesis and oral defense of thesis.

Master of Science in Science Teaching

See page 70 for requirements for this degree.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students.)

27.500 Literature of Earth Sciences (1)
27.501 Analytical Geology (3)
27.502 Earth Science Materials (3)
27.503 Geologic History of North America (3)
27.504 World Geology (3)
27.505 Economic Geology (3)
27.506 Oceanography (3)
27.511 Engineering Geology (3)
27.521 Biological Principles in Earth Sciences (3)
27.522 Paleoecology (3)
27.531 Crystallography I (4)
27.532 Crystallography II (4)
27.535 Chemical Principles in Earth Sciences (3)
27.541 Physical Principles in Earth Sciences (3)
27.542 Exploration Geophysics (3)
27.543 Hydrology (3)
27.544 Dynamic Meteorology (3)
27.546 Tectonophysics (3)
27.560 Volcanology (3)
27.700 Seminar in Earth Sciences (3)
27.797 Master's Thesis Research (3-6)

Economics

Faculty Offering Graduate Courses

Professors: Ernst Correll; Simon Naidel; Frank M. Tamagna; Amos E. Taylor, *Associate Professor:* W. Donald Bowles (Chairman). *Assistant Professor:* Francis W. Gathof, Jr. *Adjunct Professors:* Edward L. Allen; Lloyd D. Black; Paul Fisher; J. Herbert Furth; Warren S. Hunsberger; George Jaszi; Gustav Peck; Murray Ross; Daniel L. Spencer. *Professorial Lecturers:* George Brooks; John R. Fredland; Merrill Gay; William S. Johnson; Samuel I. Katz; Herman P. Miller; Roland I. Robinson; Robert Solomon; Seymour Wolfbein. *Lecturers:* Nicholas C. Anagnos; L. Jay Atkinson; Frank H. H. King; Orville McDiarmid; Loughlin F. McHugh; Arnold Price.

Graduate Degree Programs

Degrees of master of arts in economics, master of arts in economic history, doctor of philosophy in economics, and doctor of philosophy in economic history.

Master of Arts in Economics and Master of Arts in Economic History

Course Requirements: Minimum of 30 hours of approved graduate work, six of which may be in 19.797 Master's Thesis Seminar (3-6).

Written Comprehensive Examinations: Two, including one in contemporary economic theory or the history of economic thought, and one other specialized field of economics or of economic history.

Other Requirements: Thesis, or completion of two approved graduate research seminars. All candidates for the master's degree in economics must demonstrate skill in required statistical and mathematical techniques of economic analysis, normally by passing with grades of "B" or better 19.307 Introduction to Quantitative Economics and 19.507 Quantitative Economic Analysis.

Doctor of Philosophy in Economics and Doctor of Philosophy in Economic History

Course Requirements: Minimum of 72 hours of approved graduate work, at least 36 (including dissertation credit) of which must be completed in residence at The American University, and six of which must be in 19.799 Doctor's Dissertation Seminar (3-6).

Written Comprehensive Examinations:

For the degree in economics—Five, including one in the history of economic thought; one in contemporary economic theory; one in economic history; one in a specialized field of economics such as money and banking, labor economics, public finance, international trade, or economic planning; and one in another specialized field of economics or in a related field.

For the degree in economic history—Five, including one in history of economic thought or contemporary economic theory; three in specialized fields of economic history; and one in a specialized field of economics.

Other Requirements: Proficiency examinations in quantitative economics (embracing the application of statistical and mathematical techniques) and in the reading of two foreign languages, at least one of which must be French, German, or Russian. Dissertation and oral examination on dissertation.

Advanced Courses

(500-level courses are open to advanced undergraduates and graduate students; 600- and 700-level courses are open only to graduate students.)

Economic Theory

19.502 National Economic Policy (3)
19.510 History of Economic Thought: Early Period (3)
19.511 History of Economic Thought: Modern Period (3)
19.512 Equilibrium Analysis I: Theory of Prices and Production (3)
19.513 Equilibrium Analysis II: Theory of Income Distribution (3)
19.514 Theory of Income and Employment (3)
19.515 Theory of Business Fluctuations (3)
19.516 Theory of Economic Development (3)
19.517 Economic Planning: Income Stabilization (3)
19.613 Contemporary Economic Thought (3)
19.614 Economic Planning: Prices, Output, Income Distribution (3)
19.616 Theory of Aggregates (3)
19.618 The Schumpeterian System (3)
19.619 Economics of Growth (3)

Quantitative Economics

19.507 Quantitative Economic Analysis (3)
19.518 Social Accounting (3)
19.547 Foundations of Business Forecasting (3)
19.557 Labor Statistics I: Labor Force (3)
19.558 Labor Statistics II: Wages and Productivity (3)
19.607 Mathematical Economics (3)
19.608 Econometrics (3)
19.620 National Income and Wealth (3)

Money, Credit, Banking

19.520 Monetary and Banking Theory (3)
19.524 Commercial Banking Policies (3)
19.595 International Finance (3)
19.621 Theory and Management of Central Banking (3)

Public Finance

19.529 Economics of Public Finance (3)
19.530 Fiscal Theory (3)
19.632 Advanced Fiscal Theory (3)

International Economics

19.580 International Economic Relations (3)
19.581 Economic Problems of Underdeveloped Countries (3)
19.582 Economic Problems: Latin America (3)
19.583 Economic Problems: Western Europe (3)
19.584 Structure and Operation of the Soviet Economy (3)
19.585 Economic Problems: Middle East (3)
19.586 Economic Problems: Asia (3)
19.587 Foreign Economic Policies: Problems Confronting the U. S. (3)
19.588 Comparative Foreign Economic Policies (3)
19.589 Economic Problems of the Soviet Union (3)
19.592 U. S. Tariff Policy (3)
19.593 Economic Problems: Africa (3)
19.595 Comparative Economic Systems (3)
19.680 Theory of International Trade (3)

Geography

25.521 Economic Geography: Food and Agriculture (3)
25.522 Economic Geography: Mineral Resources and Manufacturing (3)
25.523 Geographic Factors in Business and Industry (3)
25.525 Economic and Political Geography of Underdeveloped Areas (3)
25.530 World Political Geography (3)
25.531 Geography of American Regions (3)
25.532 Geography of Latin America (3)
25.540 Geography of Western Europe (3)
25.550 Geography of the Soviet Union and Eastern Europe (3)
25.560 Geography of Southern and Eastern Asia (3)

Agricultural and Industrial Economics

19.540 Economics of Agriculture (3)
19.541 Economics of American Industry (3)
19.543 Industrial Organization and Public Policy (3)
19.544 Public Utility Economics (3)
19.640 Current Issues of Agricultural Policies (3)

Labor Policies

19.550 History of the U. S. Labor Movement (3)
19.551 History of the European Labor Movement (3)
19.552 Labor and the Economic Order (3)

19.553 Current Labor Problems: Domestic (3)
19.554 Comparative Labor Relations (3)
19.555 Labor and the Law (3)
19.556 Labor-Government Relationship (3)
19.650 Theory of Wages and Profits (3)

Seminars

19.710 Seminar in Economic Theory I (3)
19.711 Seminar in Economic Theory II (3)
19.712 Seminar in Research Methods and Applications (3)
19.713 Seminar in National Economic Policy (3)
19.770 Seminar in Monetary Economics (3)
19.780 Seminar in International Finance (3)
19.781 Seminar in International Economics (3)
19.783 Seminar on the Economy of the Soviet Union (3)
19.785 Seminar in Economic Problems of the Far East (3)
19.789 Seminar in Economic Development (3)
19.797 Master's Thesis Seminar (3-6)
19.799 Doctor's Dissertation Seminar (3-6)

Education

Faculty Offering Graduate Courses

Professors: Samuel Engle Burr, Jr.; John W. Devor (Chairman); Chalmer A. Gross. *Associate Professors:* E. Robert Adkins; Paul D. Leedy; Ralph Whitfield. *Adjunct Professors:* Wilmer F. Bennett; B. Willard DeShazo; Howard F. Didsbury, Jr.; William H. Jenkins; Stanley V. Smith; Ward Stewart; Robert N. Walker. *Professorial Lecturers:* Daniel B. Lloyd; Olive McKay; Louise S. Walker. *Lecturers:* William R. Carriker; Samuel Coffey; Don Dafoe; Helen Derrick; Estelle C. Epstein; Henry C. Gregory; Howard F. Hjelm; Bruce Hoak; Richard Jameson; Everett E. Jarboe; Milada A. Lejkova; George A. Male; Margaret K. Noble; Francis E. Powers; Neil Shedd; Atlee Shidler; Sylvia K. Shugrue; Peter V. Swindler.

Graduate Degree Programs

Degrees of master of education, master of arts in education, and doctor of education

Master of Education

Prerequisites: One course in General Psychology or equivalent; one course in psychological statistics or equivalent; nine (9) semester hours of undergradate work in education (minimum).

Course Requirements: Minimum of thirty (30) hours of approved graduate work, including 21.504 Evaluation of Student Progress and 21.520 Advanced Psychology of Education. If the student elects not

to write a thesis, he must take 21.795 and 21.796 Research Seminars in Education in lieu of thesis. If a thesis is written, the student must take 21.623 Methods and Materials of Educational Research and three (3) or six (6) hours of 21.797 Master's Thesis Seminar.

Written Comprehensive Examinations: Each candidate must pass three comprehensive examinations. Two of these must be taken in the fields of education and one may be in a field outside of education if approved by the Department of Education and the department outside of Education. (See detailed literature of the Department of Education.)

Master of Arts in Education

Prerequisites: Same as for Master of Education degree.

Course Requirements: Same as for Master of Education degree, with following exceptions:

Either three (3) or six (6) hours of 21.797 Master's Thesis Seminar must be taken; a thesis must be written; an oral examination must be taken covering the thesis.

Written Comprehensive Examinations: Same as for Master of Education degree, except that one comprehensive must be in either Psychology of Education or History and Philosophy of Education.

Doctor of Education

Prerequisites: One course in general psychology or equivalent; one course in psychological statistics or equivalent; eighteen (18) hours of undergraduate and/or graduate work in education (minimum); some successful teaching experience.

Course Requirements: Minimum of seventy-two (72) hours of approved graduate work, including 21.504 Evaluation of Student Progress; 21.520 Advanced Psychology of Education; 21.610 Philosophy of Education: Advanced; 21.623 Methods and Materials of Educational Research; and 21.799 Doctor's Dissertation Seminar in Education. Doctoral candidates take the dissertation seminar and present the dissertation proposals before this group. At least thirty (30) hours of course work in addition to any dissertation seminar credit must be completed in residence at The American University.

Comprehensive examinations: Three in areas of education; one in a subject-matter field; and one either in education or in some area outside of education. Of the comprehensives in education, two must be in core fields, as follows: one in either Psychology of Education or History and Philosophy of Education and one in School Administration and Supervision.

Other Requirements: Proficiency in two tools of research. These should be actual "tools" and not merely "hurdles" to be achieved in the process of work toward the doctorate. An oral examination on the dissertation must be passed after the dissertation is accepted.

Professional Certificates

Graduate professional certificates are offered in the following fields, in cooperation with the University's Division of General and Special Studies: School Administration and Supervision; Secondary Education; Elementary Education; and The Work of the School Psychologist (in cooperation with the Department of Psychology). These certificates may be issued upon completion of thirty (30) hours of acceptable graduate course work beyond the master's degree. Detailed information may be obtained from the Department of Education.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students.)

Foundations of Education

21.500 History of Education in American Culture (3)
21.501 Philosophy of Education (3)
21.504 Evaluation of Student Progress (3)
21.517 The School and Modern Social Problems (3)
21.520 Advanced Psychology of Education (3)
21.527 Mental Health Aspects of Education (3)
21.575 History of Education in Western Culture (3)
21.610 Philosophy of Education: Advanced (3)
21.623 Methods and Materials of Educational Research (3)

Elementary Education

21.516 Special Educational Programs for the Handicapped (3)
21.518 Special Educational Programs for Retarded Pupils (3)
21.519 Physical Science for Elementary School Teachers (3)
21.521 Biological and Geological Sciences for Elementary School Teachers (3)
21.522 Special Educational Programs for Gifted Pupils (3)
21.542 Curriculum Construction in Elementary Schools (3)
21.642 Current Trends and Practices in Elementary Education (3)

Secondary Education

21.515 The Core Curriculum in Elementary and Junior High Schools (3)
21.516 Special Educational Programs for the Handicapped (3)
21.518 Special Educational Programs for Retarded Pupils (3)
21.522 Special Educational Programs for Gifted Pupils (3)
21.640 Curriculum Construction in Secondary Schools (3)

School Administration and Supervision

21.502 The Teacher and Educational Administration (3)
21.561 Supervision of Student Teachers (3)
21.650 Essentials of School Law (3)
21.661 Elementary School Administration (3)
21.662 Secondary School Administration (3)
21.663 Problems of School Management (3)
21.670 School Supervision (3)

Comparative and International Education

21.580 Problems in Federal Educational Policy (3)
21.581 Issues and Programs of International Education (3)
21.615 Comparative Education I: The Western World (3)
21.616 Comparative Education II: The Orient (3)

Workshops, Seminars and Internships

21.566 Practical Procedures for Use in Today's Schools I (3)
21.567 Practical Procedures for Use in Today's Schools II (3)
21.710 Seminar in Teaching (3)
21.795 Research Seminar in Education (3)
21.796 Research Seminar in Education (3)
21.797 Master's Thesis Seminar (3-6)
21.799 Doctor's Dissertation Seminar in Education (3-6)

English

Faculty Offering Graduate Courses

Professors: MERRITT C. BATCHELDER (Director of Graduate Studies); CHARLES M. CLARK (Chairman); RUDOLPH VON ABELE. *Associate Professors:* MARY M. PATTON; LOUISE YOUNG. *Assistant Professors:* ARTHUR D. GOLBY; FRANCIS ZAPATKA. *Instructors:* JEANNE MASENGILL; MARTIN J. SMITH. *Adjunct Professors:* EDWIN E. GUNBERG; RALPH ROBIN. *Professorial Lecturer:* BARBARA NOLEN. *Lecturer:* C. BOWIE MILLICAN.

Graduate Degree Programs

Degree of MASTER OF ARTS IN ENGLISH

Course Requirements: A minimum of 30 hours of approved graduate work, including six hours in 23.797 Master's Thesis Seminar.

Written Comprehensive Examinations: Three, including one in the literary history of England, or in the literary history of the United States or in the history of the English language; one in a selected period of English or American literature with special emphasis on a

writer of the period; and one in a related field of literature, language or other appropriate subject matter, as approved by the department.

Other Requirements: Thesis and proficiency examination in French or German.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 700-level courses are open only to graduate students.)

23.503 History of the English Language (3)
23.504 Modern American English (3)
23.510 Creative Writing I (3)
23.511 Creative Writing II (3)
23.520 Chaucer I (3)
23.521 Chaucer II (3)
23.522 English Drama: 10th Century to 1642 (3)
23.523 Renaissance Literature (3)
23.524 Shakespeare I (3)
23.525 Shakespeare II (3)
23.526 Seventeenth Century Literature (3)
23.527 Milton (3)
23.528 Studies in 18th Century Literature (3)
23.530 Restoration and 18th Century Drama (3)
23.531 The English Novel I (3)
23.532 The English Novel II (3)
23.533 Romantic Literature I (3)
23.534 Romantic Literature II (3)
23.535 Victorian Literature (3)
23.536 Victorian Poetry (3)
23.537 Modern British Literature (3)
23.540 Emerson and His Era (3)
23.541 Howells and His Era (3)
23.542 The Romantic Tradition (3)
23.543 The Realist Tradition (3)
23.544 The American Novel I (3)
23.546 The American Novel II (3)
23.547 Modern American Literature (3)
23.548 American Folklore (3)
23.549 Modern British and American Drama (3)
23.550 Classical Drama (3)
23.552 Comparative Literature I (3)
23.553 Comparative Literature II (3)
23.554 Contemporary European Literature (3)
23.555 Modern European Fiction I (3)
23.556 Modern European Fiction II (3)
23.557 Modern European Drama (3)
23.563 Children's Literature (3)

Study and research in the library

23.564 Literature for Secondary Schools (3)
23.570 Interrelation of the Arts (3)
23.797 Master's Thesis Seminar (6)

Geology

(See Earth Sciences)

History

Faculty Offering Graduate Courses

Professors: CARL G. ANTHON (Chairman); DAVID J. BRANDENBURG; HAROLD E. DAVIS; ARTHUR A. EKIRCH, JR.; DOROTHY D. GONDOS; LOUIS C. HUNTER; ERNST POSNER (Emeritus); SAMUEL L. SHARP. *Associate Professors:* JOHN J. FINAN; WILLIAM HUTCHISON; ALBERT D. MOTT. *Assistant Professors:* CHARLES H. HEIMSATH; S. WHITTLE JOHNSTON. *Adjunct Professors:* ARTHUR W. HUMMEL; KERIM KEY. *Professorial Lecturers:* IRVING I. KRAMER; EDITH LOWRY; STANLEY NEHMER; WAYNE D. RASMUSSEN; WILCOMB E. WASHBURN. *Lecturers:* A. JOHN ALEXANDER; ELIZABETH L. EISENSTEIN; DOROTHY B. GOODMAN.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN HISTORY and DOCTOR OF PHILOSOPHY IN HISTORY

Master of Arts in History

Course Requirements: Minimum of 30 hours of approved graduate work, three of which must be completed in a research seminar, and three of which must be in 29.797 Master's Thesis Seminar.

Written Comprehensive Examinations: Three, including one in a core field (history of Europe, the United States, the Far East, or Latin America); one in a specialized field of history (history of a particular nation or area, a period of history, or a special phase in the history of a nation, area, period, or aspect of history); and one in a related field of the humanities or social sciences.

Other Requirements: Thesis; oral examination on the thesis (may be waived).

Doctor of Philosophy in History

Course Requirements: Minimum of 72 hours of approved graduate work, including not to exceed six hours of credit for dissertation seminars. At least 36 (including dissertation credit) of the 72 hours must be completed in residence at The American University. Eighteen of these 30 hours will be in the courses numbered 600 and above and

no less than 54 hours of the total of 72 hours must be in the fields of the comprehensive examinations.

Written Comprehensive Examinations: Five, including two in core fields, two in specialized fields of history, and one in a related field of the humanities or social sciences.

Other Requirements: Proficiency examinations in two tools of research (languages or an approved substitute); dissertation and oral examination on dissertation.

Advanced Courses

Historiography and Methods of Research

29.500 Historical Research: Materials and Methods (3)
29.501 History of Historical Writing (3)
29.503 Historical Writing in the U. S. (3)
29.504 Philosophy of History (3)
29.506 History of Scientific Thought (3)
31.530 Institute of Genealogical Research (3)

Europe

29.506 Renaissance and Reformation (3)
29.510 French Revolution and Napoleon (3)
29.511 History of Europe: 1815-1870 (3)
29.512 History of Europe: 1870-1914 (3)
29.513 Europe Since 1914 (3)
29.514 Modern Revolutions (3)
29.515 Expansion of Europe (3)
29.516 Economic History of Modern Europe I (3)
29.517 Economic History of Modern Europe II (3)
29.519 Diplomatic History of Europe, 1815-1914 (3)
29.520 English Constitutional History (3)
29.525 France: Empire to Fourth Republic (3)
29.528 Germany Since 1870 (3)
29.530 History of Czarist Russia (3)
29.531 Russia Since 1917 (3)
29.532 History of East Central Europe (3)
29.533 History of the Balkans and Turkey (3)
29.610 Intellectual History of Europe Through the Enlightenment (3)
29.611 Intellectual History of Europe From the French Revolution (3)

United States

29.540 Colonial Origins of the U. S. (3)
29.541 Era of the American Revolution (3)
29.542 Development and Disruption of the Federal Union (3)
29.543 Civil War and Reconstruction (3)

29.544 The U. S. in the 20th Century (3)
29.545 The South in U. S. History (3)
29.546 The Frontier in U. S. History (3)
29.547 History of U. S. Foreign Policy (3)
29.548 American Economic History I (3)
29.549 American Economic History II (3)
29.550 History of Industry in the U. S. (3)
29.551 History of Agriculture in the U. S. (3)
29.553 History of American Business Leadership (3)
29.640 Intellectual History of the U. S. I (3)
29.641 Intellectual History of the U. S. II (3)
29.642 Concept of American Nationalism (3)
29.643 U. S. Expansion Abroad (3)

Latin America

29.570 Colonial Origins of Latin American Nations (3)
29.571 Growth of Latin American Nationalism (3)
29.572 Latin America in the 20th Century (3)
29.573 Latin American Social and Political Thought (3)

Asia and Africa

29.535 History of the Far East in Modern Times (3)
29.536 History of Africa (3)
29.538 History of China Since the Ming Dynasty (3)
29.539 History of Japan: 1600 to the Present (3)
29.561 History of the Middle East I (3)
29.562 History of the Middle East II (3)
29.580 History of India I (3)
29.581 History of India II (3)
29.585 Chinese Intellectual History (3)

Seminars

29.710 Research Seminar in European History (3)
29.730 Research Seminar in the History of the Far East (3)
29.740 Research Seminar in the History of the U. S. (3)
29.760 Research Seminar in the History of the Middle East (3)
29.797 Master's Thesis Seminar (3-6)
29.799 Doctor's Dissertation Seminar (3-6)

Journalism and Public Relations

Faculty Offering Graduate Courses

Professor: WILLETT M. KEMPTON (Chairman); *Associate Professor:* H. D. CRAWFORD. *Assistant Professor:* RAY E. HIEBERT. *Adjunct Professors:* LUDWIG CAMINITA, JAMES MOCK, FRANK MORTIMER, CARL SHIPLEY, S. M. VINOCOUR. *Professorial Lecturers:* PAUL HILL, EDWIN TRIBBLE, LYLE WEBSTER. *Lecturers:* CHARLES GLAZER, PEARL HANSON, BERNARD POSNER, JAMES REYNOLDS, OTTO SCHALER, JULES WITCOVER, WALTER WOOD.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN JOURNALISM and MASTER OF ARTS IN PUBLIC RELATIONS

Course Requirements: Minimum of 30 hours of approved graduate work including 17.500 Communication History; 17.501 Communication Law; and 17.797-A Thesis Seminar in Journalism or 17.797-B Thesis Seminar in Public Relations.

Written Comprehensive Examinations for the degree in Journalism: Three, including the core field, one in a specialized field, and one in another specialized or related field.

Written Comprehensive Examinations for the degree in Public Relations: Three, including the core field, one in a specialized field, and one in another specialized or related field.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students.)

17.500 Communication History (3)
17.501 Communication Law (3)
17.503 Mass Media in Society (3)
17.507 Freedom of Information (3)
17.513 Visual Communication (3)
17.514 Audio-Visual Presentations (3)
17.520 Advanced Editing (3)
17.521 Editorial Writing (3)
17.523 Pictorial Journalism (3)
17.524 Advanced News Reporting (3)
17.525 Feature Article Writing (3)
17.526 Advanced Feature Article Writing (3)
17.528 Advanced TV-Radio News (3)
17.530 Business Journalism (3)
17.532 Publication Planning (3)
17.533 Publication Production (3)

17.535 School Publications (3)
17.536 Government News Reporting (3)
17.540 Public Relations Theory and Practice (3)
17.541 Publicity Writing (3)
17.542 Promotional Campaigns (3)
17.543 Public Relations Overseas (3)
17.544 Public Relations in Government (3)
17.545 Public Relations in Business (3)
17.640 Public Relations Seminar (3)
17.720 Journalism Seminar (3)
17.740 Research Seminar in Public Relations (3)
17.797 Master's Thesis Seminar (3-6)

Fine and Applied Arts

Faculty Offering Graduate Courses

Professors: ANDREW S. KECK; BEN L. SUMMERFORD (Chairman). *Associate Professors:* SARAH BAKER; ROBERT F. GATES. *Assistant Professor:* LOTHAR BRABANSKI. *Instructors:* HELENE HERZBRUN; WILLIAM OLDAKER. *Adjunct Professors:* MARGARET BOUTON; JAMES CAHILL.

Graduate Degree Programs

Degree of MASTER OF ARTS IN ART

Course Requirements: Minimum of 30 hours of approved graduate work. Eighteen hours chosen from 5.792 Art Laboratory—Painting, 5.793 Art Laboratory—Sculpture, 5.797 Master's Thesis Seminar, 5.560 Drawing, 5.533 Materials and Techniques of Painting, 5.520 and 5.521 Techniques of Etching, and 12 hours chosen from art history, humanities, or social sciences.

Written Comprehensive Examinations: Three, including one in theory and techniques of painting or sculpture, one in art history, and one elective field from art history, humanities, or social sciences.

Thesis: Execution of an original work or works of art defended by written critical analysis of problem undertaken.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students.)

Studio

5.520 Techniques of Etching I (3)
5.521 Techniques of Etching II (3)

5.533 Materials and Techniques of Painting (3)
5.560 Drawing I (3)
5.561 Drawing II (3)
5.792 Art Laboratory—Painting (3-6)
5.793 Art Laboratory—Sculpture (3-6)

Art History

7.500 Renaissance Painting (3)
7.501 Modern Painting (3)
7.502 Mediterranean Medieval Art (3)
7.503 North European Medieval Art (3)
7.506 Renaissance Sculpture (3)
7.507 Modern Sculpture (3)
7.509 Oriental Art (3)
7.510 Painting in the United States I (3)
7.511 Painting in the United States II (3)
7.700 Criticism of Painting I (3)
7.701 Criticism of Painting II (3)
5.797 Master's Thesis Seminar (3-6)

Languages and Linguistics

Faculty Offering Graduate Courses

Professors: JOHN G. FRANK; HUGO J. MUELLER (Chairman). *Assistant Professors:* ANTHONY H. HULL; MARGUERITE C. SUAREZ-MURIAS; KATHRYN D. WYATT. *Professorial Lecturer:* RALEIGH MORGAN, JR. *Lecturers:* EDWARD I. BURKART; CARLETON HODGE.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN FRENCH, GERMAN, RUSSIAN OR SPANISH, and MASTER OF ARTS IN LINGUISTICS.

Master of Arts in French, German, Russian or Spanish

Course requirements: Minimum of 30 hours of approved graduate work, up to six of which may be earned in thesis seminar. Of the remaining 24 hours, 6 to 9 must be taken in theoretical or applied linguistics, 9 to 12 in the appropriate literature, and six in area and/or history courses related to the area. Students may choose the appropriate area and history courses offered in other departments.

Written Comprehensive Examinations: Three, including one in the appropriate literature, one in general or applied linguistics, one in a specialized or related field (such as French, German, Russian, or Spanish structure, history, international relations, or the appropriate area comprehensive).

Other Requirements: Proficiency in the foreign language, demonstrated either by a Bachelor's degree in that language or equivalent preparation.

Master of Arts in Linguistics

(with special emphasis on Teaching English as a Foreign Language)

Course requirements: Minimum of 30 hours of approved graduate work, six of which should be earned by a thesis or the following alternatives to a thesis: Seminar in Linguistics (37.710) for six hours, or 37.710 for three hours and a three hour case study. Of the remaining 24 hours, nine should be taken in theoretical linguistics, six in applied linguistics, and nine in anthropology (65.534, 65.535, 65.637) or American Civilization (35.504, 35.505).

Written Comprehensive Examinations: Three, including one in General Linguistics, one in Applied Linguistics, and one in a specialized or related field (such as English, French, German, Russian, or Spanish structure; literature; cultural analysis; American Civilization).

Other requirements: A working command of at least one modern foreign language.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level course are open only to graduate students.)

37.010 Language Conferences (no credit)
37.500 Principles of Linguistics (3)
37.501 Linguistic Structure I: Phonetics and Phonemics (3)
37.502 Linguistic Structure II: Morphology and Syntax (3)
37.505 History of Linguistics (3)
37.507 Applied Linguistics: Methodology of Foreign Language Teaching (3)
37.508 Teaching English as a Foreign Language (3)
37.520 The French Renaissance (3)
37.521 Eighteenth Century France: Men and Ideas (3)
37.522 French Romanticism (3)
37.523 French Realism (3)
37.524 Contemporary French Theatre (3)
37.525 Contemporary French Novels (3)
37.530 German Classical Period (3)
37.531 Lessing (3)
37.532 Goethe (3)
37.533 Schiller (3)
37.540 Pushkin (3)
37.541 Dostoevski (3)
37.542 Tolstoy (3)
37.543 The Russian Theatre (3)
37.550 Modern Spanish Drama (3)
37.551 Spanish Nineteenth Century Regional Novel (3)
37.552 Spanish-American Literature I: 1519-1883 (3)
37.553 Spanish-American Literature II: Modern Period (3)

37.559 Contemporary Spanish Literature (3)
37.700 Seminar in Contemporary German Literature I (3)
37.701 Seminar in Contemporary German Literature II (3)
37.702 Seminar in Contemporary French Literature I (3)
37.703 Seminar in Contemporary French Literature II (3)
37.704 Seminar in Contemporary Spanish and Spanish-American Literature I (3)
37.705 Seminar in Contemporary Spanish and Spanish-American Literature II (3)
37.710 Seminar in Linguistics (3)
37.797 Master's Thesis Seminar (3-6)

Students may also choose courses from the offerings of other departments and schools, principally the Departments of English and of Sociology and Anthropology, and the School of International Service.

Mathematics and Statistics

Faculty Offering Graduate Courses

Professor: JOHN H. SMITH. *Associate Professors:* GRACE SHOVER QUINN; STEVEN H. SCHOT (Chairman). *Instructor:* IRVING J. KATZ. *Adjunct Professors:* HOWARD H. CAMPAIGNE; JEROME CORNFIELD; PHILIP DESIND; CHARLES H. FRICK; WALTER W. JACOBS; C. RUSSELL PHELPS; RAYMOND J. SEEGER; WALT R. SIMMONS. *Professorial Lecturers:* GEORGE F. CRAMER; NORMAN C. DAVIS; ELGY S. JOHNSON; ROSS L. PACKARD; RICHARD I. ROSSBACHER; DANIEL SHANKS. *Lecturers:* HARRY ROSENBLATT; CARL LEROY TIBERY.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN MATHEMATICS, MASTER OF ARTS IN STATISTICS, DOCTOR OF PHILOSOPHY IN MATHEMATICS and DOCTOR OF PHILOSOPHY IN STATISTICS

Master of Arts in Mathematics

Course Requirements: Minimum of 30 hours approved graduate work, including three hours in 41.797 Thesis Seminar in Mathematics.

Written Comprehensive Examinations: Three fields, including Modern Algebra or Matrix Theory, and Real Variables or Complex Variables, and another approved field.

Other Requirements: Six undergraduate semester hours of Russian, German or French, or proficiency examination; thesis and oral examination on thesis.

Master of Arts in Statistics

Course Requirements: At least 30 hours of approved graduate work, six hours of which may be in 69.797 Thesis Seminar in Statistics.

Written Comprehensive Examinations: Statistical Theory and two other approved fields in mathematics, statistics, and fields of application.

Other Requirements: Six semester hours of Russian, German, French or proficiency examination; thesis and oral examination on thesis.

Doctor of Philosophy in Mathematics

Course Requirements: At least 72 hours of approved graduate work, at least 36 (including dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations: Five fields, including Modern Algebra and Matrix Theory and Real and Complex Variables and three other approved fields, at least two of which must be in mathematics or mathematical statistics; one may be in a field closely related to field of major interest.

Other Requirements: Proficiency in two languages chosen from Russian, German, or French; dissertation on a topic sponsored by a full-time faculty member in an appropriate field of analysis or algebra, and oral defense of the dissertation.

Doctor of Philosophy in Statistics

Course Requirements: At least 72 hours of approved graduate work, at least 36 (including dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations: Two fields in advanced statistical theory and three fields from mathematics, statistics, and closely related natural and social sciences.

Other Requirements: Proficiency in two tools of research chosen from Russian, German, French, or mathematics; dissertation on a topic sponsored by a full-time faculty member in an appropriate field of mathematical statistics; and oral defense of the dissertation.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students)

Mathematics

Foundations and Algebra

41.502 Foundations of Mathematics I (3)
41.503 Foundations of Mathematics II (3)
41.510 Matrix Theory (3)
41.512 Modern Algebra I (3)
41.513 Modern Algebra II (3)
41.515 Number Theory (3)
41.616 Theory of Finite Groups (3)

Analysis, Geometry, and Topology

41.520 Introduction to Analysis I (3)
41.521 Introduction to Analysis II (3)
41.523 Ordinary Differential Equations (2)
41.524 Partial Differential Equations (2)
41.525 Special Functions (2)
41.528 Vector Analysis (3)
41.546 Point-Set Topology (3)
41.620 Complex Variables I (3)
41.621 Complex Variables II (3)
41.622 Real Variables I (3)
41.623 Real Variables II (3)
41.625 Calculus of Variations (2)
41.626 Integral Equations (3)
41.634 Functional Analysis (3)

Numerical Analysis and Computer Systems

41.560 Numerical Analysis I: Basic Problems (2)
41.561 Numerical Analysis II: Matrices (2)
41.562 Numerical Analysis III: Ordinary Differential Equations (2)
41.565 Finite Differences (3)
41.566 Computer Design I (2)
41.567 Computer Design II (2)
41.568 Computer Programming I (2)
41.569 Computer Programming II (2)

See also 55.520 Automatic Data Processing Systems and 55.521 Problems of Automatic Data Processing Systems, in School of Government and Public Administration.

Mathematical Physics

41.550 Mathematics for Physics I (3)
41.551 Mathematics for Physics II (3)
41.654 Partial Differential Equations of Mathematical Physics I (2)
41.655 Partial Differential Equations of Mathematical Physics II (2)
41.656 Mathematical Theory of Fluid Dynamics I (3)
41.657 Mathematical Theory of Fluid Dynamics II (3)

Seminars

41.710 Seminar: Algebra (3)
41.720 Seminar: Analysis (3)
41.750 Seminar: Applied Mathematics (3)
41.797 Master's Thesis Seminar in Mathematics (3)
41.799 Doctoral Dissertation Seminar in Mathematics (3-6)

Theory of Probability and Statistics

41.574 Theory of Probability I (3)
41.575 Theory of Probability II (3)
69.500 Mathematical Statistics I (3)
69.501 Mathematical Statistics II (3)
69.505 Regression and Variance Analysis I (3)
69.506 Regression and Variance Analysis II (3)
69.571 Sequential Analysis (3)
69.577 Information and Coding Theory (3)
69.578 Stochastic Processes (3)
69.602 Characteristic Functions (3)
69.604 Statistical Decision Theory (3)
69.606 Nonparametric Inference (3)
69.610 Statistical Inference I (3)
69.611 Statistical Inference II (3)
69.620 Multivariate Analysis I (3)
69.621 Multivariate Analysis II (3)
69.671 Theory of Experimental Design (3)
69.680 Advanced Mathematical Statistics I (3)
69.681 Advanced Mathematical Statistics II (3)
69.790 Seminar in Statistical Theory and Probability (3)
69.797 Master's Thesis Seminar in Statistics (3)
69.799 Doctoral Dissertation Seminar in Statistics (3-6)

Applied Probability and Statistics

69.502 Correlation and Regression Methods (3)
69.504 Analysis of Variance (3)
69.507 Statistical Methodology I (3)
69.508 Statistical Methodology II (3)
69.510 Theory of Sampling I (3)
69.511 Theory of Sampling II (3)
69.520 Design of Schedules and Sampling (3)
69.552 Advanced Psychological Statistics (3)
69.570 Quality Control (3)
69.572 Design of Experiments (3)

Music

Faculty Offering Graduate Courses

Professors: Gordon H. Smith (Chairman); James L. McLain. *Assistant Professor:* Evelyn Swarthout Hayes. *Professorial Lecturer:* Esther W. Ballou. *Lecturers:* Elizabeth Boos, Charles Crowder, Richard Dirksen, Olga Gazda, Thomas Hill, Harlan Laufman, Carolyn Long, Sophocles Papas, Alma Rich, Vera Neeley Ross, Aaron Shearer.

Graduate Degree Requirements

Degree of MASTER OF ARTS IN MUSIC

Course Requirements: Minimum of 30 hours of approved graduate work, six hours of which may be in 43.797 Thesis Seminar in Music.

Written Comprehensive Examinations: Three from among the following: music history and literature; composition; music education; and one related field. No more than one examination may be selected from each of the above fields except that three may be selected from music history and literature, in which case one must be general music history.

Other requirements: Thesis, or public recital of professional character and a written research report in the field of music history or literature related to the recital, or composition of a work in one of the larger forms of music and written analysis or public performance of the composition. Proficiency in French, German, or an approved substitute.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students.)

43.500 The Baroque Era (3)
43.501 The Classic Era (3)
43.502 The Romantic Period (3)
43.504 Chamber Music Literature (3-4)
43.505 Orchestral Literature (3)
43.506 The Opera (3)
43.508 Counterpoint I (3)
43.509 Counterpoint II (3)
43.510 Musicology Seminar (3)
43.511 Orchestration (3)
43.549 Choral Music in the Public Schools: Materials & Methods Elementary School Level (3)
43.550 Choral Music in the Public Schools: Materials & Methods Secondary School Level (3)
43.551 Instrumental Music in the Public Schools: Materials and Methods Elementary School Level (3)
43.552 Current Trends in Music Education (3)
43.700 Analytical Studies (3)
43.701 Renaissance Music (3)
43.702 Seventeenth Century Music (3)
43.703 Advanced Composition (3)
43.792 Music Performance Laboratory (1-3)
43.797 Master's Thesis Seminar (3-6)

Philosophy and Religion

Faculty Offering Graduate Courses

University Professor: CHARLES H. MALIK. *Professor:* HAROLD A. DURFEE (Chairman). *Associate Professor:* ROGER T. SIMONDS. *Assistant Professors:* JAMES L. CELARIER; JOSIAH B. GOULD, JR.; THEODORE R. ROSCHE.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN PHILOSOPHY and MASTER OF ARTS IN RELIGION

Master of Arts in Philosophy

Course Requirements: Minimum of 30 hours of approved graduate work, six hours of which may be in 47.797 Master's Thesis Seminar in Philosophy.

Written Comprehensive Examinations: One in the history of philosophy with special emphasis upon a selected major philosopher, and two from the following fields: ethics, epistemology, metaphysics, social philosophy, philosophy of religion, philosophy of science, philosophy of history, aesthetics, or a related field.

Other Requirements: Proficiency in one research tool (French or German); thesis.

Master of Arts in Religion

Course Requirements: Minimum of 30 hours of approved graduate work, six hours of which may be 47.797 Master's Thesis Seminar in Religion.

Written Comprehensive Examinations: One in the history of religion with special emphasis upon a selected non-Christian religion or in English Bible with special emphasis upon a selected author, and two from the following fields: church history with special emphasis on a selected period, Christian ethics, social ethics, history of Christian thought with special emphasis upon a selected classical figure in the same, or a related field.

Other Requirements: Proficiency in one research tool (French, German, Greek, or Hebrew); thesis.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students.)

Philosophy

47.500 Philosophy of Religion (3)
47.504 Contemporary Philosophy (3)
47.506 Recent Philosophy (3)
47.508 Studies in Major Philosophers (3)
47.510 Aesthetics (3)
47.512 Selected Topics in Philosophical Analysis (3)
47.520 Symbolic Logic (3)
47.521 Philosophy of Science (3)
47.530 Social Philosophy (3)
47.797 Master's Thesis Seminar (3-6)
75.569 Philosophical Issues in World Relations (3)

See also 29.504 Philosophy of History, under Department of History.

Religion

47.550 Studies in Non-Christian Religions (3)
47.560 Selected Biblical Studies (3)
47.797 Master's Thesis Seminar in Religion (3-6)

See also 65.580 Religious Movements and Institutions under Department of Sociology and Anthropology.

See also the catalog of the Wesley Theological Seminary for further graduate courses and programs leading to the degrees of S.T.B., S.T.M., and M.R.E.

Physics

Faculty Offering Graduate Courses

Professor: Ralph B. Kennard. *Associate Professor:* Mark Harrison (Chairman). *Assistant Professor:* Alan D. Morris. *Adjunct Professors:* Randall S. Caswell; Paul Z. Kalavski. *Professorial Lecturers:* C. M. Davis; Earl Callen; David Saltus. *Research Professor:* Ross Gunn.

Graduate Degree Programs

Degrees of master of science in physics and master of science in science teaching.

Master of Science in Physics

Course Requirements: Minimum of 30 hours of approved graduate work in physics, including six hours of 51.797 Master's Thesis Research and nine hours on the 600 level. 41.550 and 41.551 Mathematics for Physics I and II can be used for graduate credit in physics. This course or equivalent mathematical training is expected as a background for all courses on the 600 level. Other mathematics courses

of special interest to Physics students are 41.654 and 41.655 Partial Differential Equations of Mathematical Physics I and II (4), and 41.656 and 41.657 Mathematical Theory of Fluid Dynamics I and II (6)

Written Comprehensive Examinations: Three; one over the subject matter of mechanics and modern physics; one over the subject matter of electromagnetics, optics, and thermodynamics; and one specialized examination approved by the department.

Other Requirements: Oral presentation of thesis research before the faculty of the Physics Department.

Master of Science in Science Teaching

See page 70 for requirements for this degree.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students.)

51.500 Introduction to Theoretical Physics I (3)
51.501 Introduction to Theoretical Physics II (3)
51.531 Acoustics (3)
51.541 Optics (3)
51.554 Principles of Electronics (3)
51.555 Electronic Circuits (3)
51.556 Electronics Laboratory I (1)
51.557 Electronics Laboratory II (1)
51.560 Thermodynamics (3)
51.570 Atomic Physics (3)
51.573 Nuclear Physics (3)
51.577 Solid State Physics (3)
51.579 Statistical Physics (3)
51.630 Theoretical Mechanics I (3)
51.631 Theoretical Mechanics II (3)
51.634 Waves and Vibrations I (3)
51.635 Waves and Vibrations II (3)
51.650 Electromagnetic Theory I (3)
51.651 Electromagnetic Theory II (3)
51.670 Quantum Mechanics I (3)
51.671 Quantum Mechanics II (3)
51.797 Master's Thesis Seminar (3-6)

See also 41.550 and 41.551 Mathematics for Physics I and II, and 41.654, 41.655, 41.656, & 41.657, listed under the Department of Mathematics and Statistics.

Psychology

Faculty Offering Graduate Courses

Professor: Ellis Weitzman (Chairman). *Associate Professors:* David J. King; Robert E. Lana. *Assistant Professor:* Fred H. Nothman. *Adjunct Professors:* Ernest S. Primoff; Joseph Samler. *Professorial Lecturer:* William Hodos. *Graduate Studies Consultants:* Irwin Altman; Edwin P. Hollander; Elliott M. McGinnies.

Graduate Degree Programs

Degrees of master of arts in psychology and doctor of philosophy in psychology

Master of Arts in Psychology

Course Requirements: Minimum of 30 hours of approved graduate work, including 57.501 and 57.502 Advanced Experimental Psychology I and II (6); 57.540 and 57.541 History and Systems of Psychology I and II (6); 69.552 Advanced Psychological Statistics (3); and 6 hours in 57.797 Thesis Seminar in Psychology or 6 hours of 57.698 Directed Research.

Written Comprehensive Examinations: Two, one in general experimental psychology and one in history and systems of psychology.

Other Requirements: Thesis, or six hours of 57.698 Directed Research.

Doctor of Philosophy (in social psychology only)

Course Requirements: Minimum of 72 hours of approved graduate work, at least 36 (including dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations: Five, one in general experimental psychology, one in history and systems of psychology, one in social psychology, and two in specialized fields such as personality, measurement techniques, etc.

Other Requirements: Proficiency examination in two research tools (language and statistics); dissertation and oral examination on the dissertation.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students.)

57.501 Advanced Experimental Psychology I (3)
57.502 Advanced Experimental Psychology II (3)
57.505 Psychological and Educational Measurements II (3)
57.506 Psychological and Educational Measurements III (3)

57.507 Psychology of the Exceptional Child (3)
57.510 Psychology of Personality (3)
57.512 Motivation (3)
57.515 Dynamics of Group Behavior: Fundamentals (3)
57.523 Measurement in Personality Research (3)
57.524 Abnormal Psychology (3)
57.525 Physiological Psychology (3)
57.530 Social and Psychological Aspects of International Relations I (3)
57.531 Social and Psychological Aspects of International Relations II (3)
57.532 Social and Psychological Aspects of Intergroup Tensions (3)
57.540 History and Systems of Psychology I (3)
57.541 History and Systems of Psychology II (3)
57.572 Principles and Practices of Guidance (3)
57.600 Experimental Approach to Clinical Psychology (3)
57.604 Advanced Social Psychology (3)
57.606 Problems in Test Construction (3)
57.698 Directed Research (3)
57.798 Seminar in Psychology (6) (May be repeated for credit)
57.797 Master's Thesis Seminar (3-6)
57.799 Doctor's Dissertation Seminar (3-6)

See also 69.552 Advanced Psychological Statistics, under Department of Mathematics and Statistics.

Religion

(See Philosophy and Religion)

Public Relations

(See Journalism and Public Relations)

Sociology and Anthropology

Faculty Offering Graduate Courses

Professors: Lawrence Krader; Frank Lorimer; Harvey C. Moore; Austin Van der Slice (Chairman). *Associate Professors:* John Carver Scott; S. Frederick Seymour. *Assistant Professor:* Donald D. Hartle. *Adjunct Professors:* Robert T. Bower; Helen Martz. *Professorial Lecturers:* Harold F. Dorn; Philip E. Enterline; Victor Evjen; Benjamin Frank; Angel Palerm; Morris Rosenberg; Clark Tibbits; Ivor Wayne. *Lecturers:* Ruth Landman; William H. Lewis.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN ANTHROPOLOGY, MASTER OF ARTS IN SOCIOLOGY, and DOCTOR OF PHILOSOPHY IN SOCIOLOGY

Master of Arts in Anthropolgy

Course Requirements: Minimum of 30 hours of approved graduate work, including 65.797 Master's Thesis Seminar (3-6).

Written Comprehensive Examinations: Three, including one in the general history of anthropological theory and method; one in a specialized field of anthropology such as ethnology and social anthropology, ethnography, linguistics, the archeology of two selected areas of the Old World or New World, or physical anthropology; and one related field.

Other Requirements: Thesis and oral examination on thesis.

Master of Arts in Sociology

Course Requirements: Minimum of 30 hours of approved graduate work, six of which may be in 65.797 Master's Thesis Seminar (3-6).

Written Comprehensive Examinations: Three, including one in sociological theory; one in methods of social research; and one selected from the fields of anthropology, population studies, social psychology, certain other specialized areas in sociology or a related social science.

Other Requirements: Thesis and oral examination on thesis.

Doctor of Philosophy in Sociology

Course Requirements: Minimum of 72 hours of approved graduate work, at least 36 (including dissertation credit) of which must be in residence at The American University.

Written Comprehensive Examinations: Five, including one in sociological theory; one in methods of social research; and three selected from social organization, ethnic group relations, population, criminology, public opinion, communication research, social psychology, or a related field.

Other Requirements: Acceptable performance on the Advanced Test in Sociology of the Graduate Record Examination as a condition of advancement to candidacy; proficiency examinations in two tools of research selected from languages and statistics; dissertation and oral defense of dissertation.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students)

Sociological Theory

65.510 Concepts of Sociology (3)

65.610 History of Sociological Theory I (3)
65.611 History of Sociological Theory II (3)
65.711 Sociological Theory: Seminar (3)

Social Research

65.511 Theory of Social Research (3)
65.612 Social Research Methods I (3)
65.613 Social Research Methods II (3)
65.615 Attitude Measurement and Research (3)
65.691 In-Service Training Project (3-6)
65.712 Seminar in Sociology

Anthropology

65.520 Archeology of North America (3)
65.521 Archeology of Nuclear America (3)
65.522 The Beginnings of Civilization in the Near East (3)
65.523 Paleolithic Archeology of the Old World (3)
65.530 Theory and Methods of Cultural Anthropology (3)
65.531 Comparative Social Organization (3)
65.532 Processes of Culture (3)
65.534 Cultural Analysis (3)
65.535 Cultural Influences Upon the Individual (3)
65.536 History of Anthropology (3)
65.537 Language and Culture (3)
65.538 Applied Anthropology (3)
65.539 Culture Area Analysis (3)

Social Organization

65.540 Social Organization (3)
65.542 Sociology of Political Action (3)
65.543 Sociology of Work (3)
65.545 Contemporary Communities (3)
65.547 Social Stratification (3)
65.548 Racial and Cultural Contacts (3)
65.549 Sociology of Science (3)
65.550 The City (3)
65.580 Religious Movements and Institutions (3)

Population and Society

65.551 Analysis of Population Trends (3)
65.554 Morbidity and Mortality Analysis (3)
65.751 Seminar in Population Studies (3)

Social Psychology

65.590 Collective Behavior (3)
65.591 Person and Society (3)
65.592 Social Aspects of Mass Communication (3)
65.615 Attitude Measurement and Research (3)

Applied Sociology

65.561 Public Welfare: Principles and Problems (3)
65.562 Sociology of Health (3)
65.563 Causes of Crime (3)
65.566 Aging in Modern Life (3)
65.567 Urban Redevelopment (3)
65.568 Treatment of the Offender I (3)
65.569 Treatment of the Offender II (3)
65.713 Seminar in Family and Marriage Relations (3)
65.797 Master's Thesis Seminar (3-6)
65.799 Doctor's Dissertation Seminar (3-6)

Political Science

For graduate degree programs in Political Science, see "School of Government and Public Administration" and "School of International Service" in this catalog, and, see also their separate catalogs.

Area Studies

For graduate degree programs in Area Studies, see page 93.

Statistics

(See Mathematics and Statistics)

Speech Arts

Faculty Offering Graduate Courses

Professors: DONALD M. WILLIAMS; J. H. YOCUM (Chairman). *Associate Professor:* ROBERT M. HENDERSON. *Assistant Professors:* MICHAEL M. OSBORN; ROGER PENN; JEROME B. POLISKY. *Instructors:* GEORGE E. GEESEY; R. T. RUSSELL. *Adjunct Professors:* LAWRENCE BECKERMAN; STANLEY FIELD. *Professorial Lecturer:* JAMES I. LORE. *Lecturers:* JAMES A. GUSTAFSON; ZELDA H. KOSH.

Graduate Degree Program

Degree of MASTER OF ARTS IN SPEECH ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, six hours of which may be in 67.797 Master's Thesis Seminar.

Written Comprehensive Examinations: Three, including one in a core field of one of the major departmental areas: broadcasting, rhetorical theory and public address, theatre; and two in specialized fields, one of which must be in the Department of Speech Arts.

Other Requirements: Thesis and oral defense of thesis.

Advanced Courses

67.521 Scene Design: Advanced (3)
67.522 Advanced Technical Problems (3)
67.532 Principles of Performance III: Directing (3)
67.550 History of Theatre I (3)
67.551 History of Theatre II (3)
67.558 History of Motion Pictures (3)
67.560 Principles of Dramatic Writing I (3)
67.561 Principles of Dramatic Writing II: Broadcasting (3)
65.562 Principles of Dramatic Writing III: Theatre (3)
67.579 Teaching of Speech Arts (3)
67.581 Teaching with Television and Radio (3)
67.583 Film Production (3)
67.584 TV Production and Direction I (3)
67.585 TV Production and Direction II (3)
67.588 Radio-TV Programming (3)
67.620 Seminar in Broadcasting (3-6)
67.630 Seminar in Rhetorical Theory (3-6)
67.631 Seminar in History and Criticism of Public Address (3-6)
67.640 Seminar in Theatre (3-6)
67.662 Broadcasting in the Public Interest (3)
67.674 TV Production Laboratory (3)
67.797 Master's Thesis Seminar (3-6)

Inter-Departmental Science Program

This program is administered under the joint supervision of the Division of Natural Sciences and Mathematics and the Department of Education.

Graduate Degree Program

Degree of MASTER OF SCIENCE IN SCIENCE TEACHING

Course Requirements: Minimum of 30 hours of approved graduate work, with six or more hours taken in the major field. The student's undergraduate and graduate courses in the major field must total at least 32 credit hours. Other requirements include a minimum of eight hours in a second science field; one year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the M.S.S.T. program or as non-credit courses along with the courses taken for graduate credit; a course in either History of Science or Philosophy of Science; and six hours of graduate courses in education.

Written Comprehensive Examinations: Two in the field of natural science and one in the field of education.

Advanced Courses

For this degree only, in addition to graduate courses listed elsewhere a limited number of courses (not to exceed 12 hours) at the 300-level and 400-level may be used toward the requirements of this degree. These may be selected from the following courses *only:*

9.307	Genetics (3)
9.410	Invertebrate Zoology (4)
15.310	Organic Chemistry I (3)
15.311	Organic Chemistry Lab. I (2)
15.320	Organic Chemistry II (3)
15.321	Organic Chemistry Lab. II (2)
15.350	Quantitative Analysis I (3)
15.351	Quantitative Analysis Lab. I (2)
15.360	Quantitative Analysis II (3)
15.361	Quantitative Analysis Lab. II (2)
27.321	Paleontology (4)
27.331	Mineralogy (4)
27.332	Introduction to Petrology (4)
27.441	Structural Geology (3)
41.310	Higher Algebra I (3)
41.311	Higher Algebra II (3)
41.321	Differential Equations (3)
41.440	Modern Geometry (3)
41.474	Probability (3)
51.320	Physics Concepts for Teachers I (3)
51.321	Physics Concepts for Teachers II (3)
51.322	Experimental Physics for Teachers I (3)
51.323	Experimental Physics for Teachers II (3)
51.330	Principles of Mechanics I (3)
51.331	Principles of Mechanics II (3)
51.370	Introduction to Modern Physics (3)
51.450	Electricity and Magnetism I (3)
51.451	Electricity and Magnetism II (3)

Graduation exercises take place in the campus quadrangle

School of Business Administration

School of Business Administration

Faculty Offering Graduate Courses

Professors: NATHAN A. BAILY (Dean); FRANK G. COOLSEN; MARVIN L. FAIR (Director, Transportation Program); JOSEPH E. HAMPTON (Director, Accounting Program); OLE S. JOHNSON (Director, Marketing Program); HOWE MARTYN; NIKOS G. PHOTIAS (Assistant Dean, Doctoral Program; Director, Managerial Analysis, International Business Programs); HAROLD B. WESS.

Associate Professors: ORTON W. BOYD; HENRY M. CUNNINGHAM (Assistant Dean); FLOYD GRAHAM; SEYMOUR A. KAUFMAN; MARTIN L. KING; WALTER F. MUHLBACH (Director, Finance Program); JAMES OWENS.

Assistant Professors: DONALD M. CHANG; HARRY J. WHEATON (Assistant to Dean, Undergraduate Program).

Adjunct Professors: HUGH C. BICKFORD; ERNEST E. BLANCHE; ELMER C. KOCH; MARTIN KRIESBERG; MELVIN E. LEWIS; MYLES E. ROBINSON.

Professorial Lecturers: RUSSELL S. BERNHARD; OSCAR BESSIO; WILLIAM J. BURNS; LAWRENCE DOBROW; BERNARD T. DODDER; ARTHUR M. FISHER; THEODORE F. GAUTSCHI; LEONARD I. JACOBS; MAXWELL KAUFMAN; ROBERT W. KING; JAC LEHRMAN; FREDERICK A. MARSTELLER; JAMES M. PARRISH; MILTON PEARL; WILLIAM C. PENNINGTON; A. M. PROTHRO; JOHN R. RIGGLEMAN; WILLIAM F. ROGERS, JR; IRVING RUDD; DAVID SACHS; JACOB SEIDENBERG; MILTON A. SMITH; GEORGE E. STRONG.

Lecturers: GORDON B. BIRREL; RICHARD L. BOLSTER; JAMES A. CLARK; HERSCHEL CUTLER; GABRIEL J. DANIHEL; LEO DAVID; ALBERT L. DEMOND; ALVIN DOBBIN; GUY DOUYON; ROBERT T. GLADSTONE; EUNICE F. HAIR; D'ARCY HARVEY; RAYMOND W. HOECKER; HAMMET HOUGH; CLYDE W. HUMPHREY; CARL P. N. JENSEN; MARTIN L. KAMEROW; L. C. KENDALL; ARNOLD M. KRONSTADT; PAUL MCDONALD; JOSEPH M. MCNAMARA; MARTIN MALTENFORT; CHARLES D. MEARS; JOSEPH MENSH; EDWARD D. PERKINS; WALTER M. PRICHARD; WALTER A. ROTKIS; WILSON L. SCOTT; HERBERT E. STATS; ROBERT S. TRIPLETT; GEORGE C. WEBSTER; WILLIAM WEINFELD.

Graduate Degree Programs

Degrees of MASTER OF BUSINESS ADMINISTRATION and DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION.

Master of Business Administration

Course Requirements: Minimum of 54 credits, at least 30 of which must be in courses numbered "500" or above with at least a "B" average, and 24 of which are prerequisite courses. *Prerequisites are waived for students who have satisfactorily completed them in previous study or*

who pass examinations. All prerequisites must be satisfactorily completed before students may be advanced to candidacy. At least 24 of the "500" or above credits, including the research seminars used to meet the non-thesis option, must be in residence.

Business Management: 10.756, 10.757 Seminars in Policy Formulation and Administration; 10.758, 10.759 Seminars in Human Relations in Business*; 10.556 Business Budgeting and Executive Control.

Elective Field: at least 15 credits in courses numbered "500" or above and generally including at least one Seminar.

Prerequisite Courses: 10.400 Use of Accounting Methods; 10.430 Analysis of Financial Statements; 69.400 Managerial Statistics; 19.446 Introduction to Business Economics; 10.446 Business Finance; 10.481 Principles of Production Management; 10.491 Personnel Management; 11.401 Principles of Marketing.

Written Comprehensive Examinations: Business Management and one selected from the approved list of standard fields (see School of Business Administration Catalog).

Other Requirements: Write and successfully defend at an oral examination a satisfactory master's thesis* or qualify by appropriate Seminar grades (at least two "B" or better grades in 10.756, 10.757, 10.758, 10.759) for the *non-thesis option.*

Doctor of Philosophy in Business Administration

Programs leading to the Doctorate are under the general supervision of the Graduate School. Doctoral students are counseled by the School of Business Administration.

Course Requirements: Minimum of 72 credits in graduate courses and seminars (including 6 hours of Dissertation Seminar) with a better than "B" average. Of these credits, 30 plus 6 hours of Dissertation Seminar must be in residence. A minimum of 54 hours must lie within the fields approved for a student's comprehensive examinations.

Comprehensive Examination Fields and Required Courses

Business Management: 10.756, 10.757 Seminars in Policy Formulation and Administration (6); 10.761 Seminar in Philosophy of Management (3); 10.556 Business Budgeting and Executive Control (3); 10.758, 10.759 Seminars in Human Relations in Business (6).

Managerial Analysis: 10.642 Managerial Analysis (3); 10.742 Seminar in Managerial Analysis (3).

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*Students electing thesis option register for 12.797 Master's Thesis Seminar in place of 10.759.

Dissertation Seminar: (6)

Three Elective Fields: Balance of required credits in courses numbered "500" or above, generally including at least two Seminars.

(*Note:* All the above and other appropriate courses satisfactorily completed for the M.B.A. may be applied to the Ph.D. requirements.)

Additional Requirements: Meet requirements for tools of research in accounting and statistics (unless a foreign language or mathematics is approved partially in lieu of statistics) and satisfy the prerequisite requirements of the M.B.A. as indicated above.

Written Comprehensive Examinations: Examinations in Business Management, Managerial Analysis and three additional fields of the student's choice (one of which may be outside of Business Administration).

Research Requirements: Write and successfully defend at an oral examination a satisfactory doctoral dissertation.

Advanced Courses

(500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open only to graduate students)

Basic, General Courses

10.501 Literature of Business Administration (3)
29.553 History of American Business Leadership (3)

Accounting

10.511 Consolidated Financial Statements (3)
10.512 Cost Accounting II (3)
10.522 Auditing II: Professional Practice (3)
10.531 Taxation I (3)
10.532 Taxation II (3)
10.533 Taxation III (3)
10.534 System Design and Installation I (3)
10.535 Advanced Accounting (3)
10.536 Governmental Accounting (3)
10.537 Advanced Accounting Problems I (3)
10.538 Advanced Accounting Problems II (3)
10.539 Controllership in Business (3)
10.540 System Design and Installation II (3)
10.711 Seminar in Accounting Theory (3)
10.712 Seminar in Internal Auditing (3)

Automatic Data Processing

(The School of Business Administration, School of Government and Public Administration and Department of Mathematics and Statistics cooperate in this joint program.)

75.520 Automatic Data Processing Systems (3)
75.521 Problems of Automatic Data Processing Systems (3)
10.540 System Design and Installation II (3)
75.557 Operations Research in Management (3)
75.763 Seminar in Automatic Data Processing Systems (3)

Business Education

10.546 Survey of Business Education (3)
10.746 Seminar in Business Education (3)

Business-Government Relations

10.500 Business-Government Relations (3)
11.504 Government and Marketing (3)
10.700 The Business Administrator and Government Policy (3)
10.705 Seminar in Business-Government Relations (3)

Business Management

10.556 Business Budgeting and Executive Control (3)
10.756 Seminar in Policy Formulation and Administration I (3)
10.757 Seminar in Policy Formulation and Administration II (3)
10.758 Seminar in Human Relations in Business I (3)
10.759 Seminar in Human Relations in Business II (3)
10.760 Seminar for Case Conference Leaders (3)
10.761 Seminar in Philosophy of Management (3)

Church Business Management

12.546 Principles of Church Management (3)
12.548 Problems in Church Business Management (3)
12.550 Projects in Church Business Management (3)
12.691 Internship in Church Business Management (3)
12.746 Seminar in Church Business Management (3)

Financial Management and Investments

10.566 Advanced Business Finance (3)
10.567 The Money Market (3)
10.568 Distribution of Securities (3)
10.569 Investment Analysis (3)
10.570 Advanced Investment Analysis (3)
10.572 Credit Administration (3)

Industrial Relations and Personnel Management

10.591 Wage Administration and Job Evaluation
10.592 Industrial Relations (3)
10.593 Advanced Industrial Relations (3)
10.594 Supervision in Business (3)
10.595 Communication and Employee Productivity (3)
10.791 Seminar in Personnel Management (3)

International Business

11.526 Introduction to International Business (3)
11.527 Export-Import Procedures (3)
11.528 International Marketing Operations (3)
11.529 World Business Conditions: Problems and Opportunities in Specified Areas (3)
11.626 The Multi-National Firm (3)
11.726 Seminar in International Business (3)

Managerial Analysis

10.642 Managerial Analysis in Business (3)
19.547 Foundations of Business Forecasting (3)
10.742 Seminar in Managerial Analysis (3)

Marketing

11.501 Consumer Markets (3)
11.502 Marketing Research (3)
11.583 Real Estate Market Analysis (3)
11.503 Industrial Purchasing (3)
11.504 Government and Marketing (3)
12.565 Physical Distribution Management (3)
11.601 Marketing Management Problems (3)
11.701 Seminar in Marketing (3)
11.511 Sales Promotion (3)
11.512 Advertising Copy (3)
11.513 Advertising Layout and Production (3)
11.514 Advertising Media (3)
11.515 Direct Mail Selling (3)
11.520 Advertising Agency Management (3)

Food Marketing

11.546 Food Merchandising (3)
11.548 Food Store Management (3)
11.536 Store Management and Merchandising (3)
11.537 Store Organization and Operation (3)
11.538 Fashion Retailing (3)
11.539 Merchandising Home Furnishings (3)
11.540 Retail Buying (3)

11.541 Consumer Products (3)
11.542 Mathematics of Merchandising (3)
11.551 Sales Management (3)
11.552 Distribution Cost Analysis (3)
11.736 Seminar in Retailing Management (3)

Production Management

10.581 Work Analysis (3)
10.582 Industrial Plant Planning (3)
10.583 Materials Handling (3)
10.781 Seminar in Production Management (3)

Public Relations

17.545 Public Relations in Business (3)

Real Estate and Insurance

11.576 Real Estate Practice I (3)
11.577 Real Estate Practice II (3)
11.578 Real Estate Law (3)
11.579 Home Building (3)
11.584 Apartment Construction (3)
11.580 Mortgage Financing (3)
11.582 Property Management (3)
11.583 Land Planning and Use (3)
11.586 Life Insurance I (3)
11.587 Life Insurance II (3)
11.588 Property Insurance (3)
11.589 Casualty Insurance (3)
31.504 Institute on Real Estate Appraisal I (3)
31.505 Institute on Real Estate Appraisal II (3)

Research Administration

(The School of Business Administration and the School of Government and Public Administration cooperate in offering this program.)

75.530 Administration of Research Activities (3)
75.785 Seminar in Research Administration I (3)
75.762 Seminar in Research Administration II (3)

Statistics

(The Department of Mathematics and Statistics cooperates with the School of Business Administration both by offering service courses in Statistics and by advanced courses for graduate students electing Business Statistics as a Comprehensive Examination field.)

Transportation

12.562 Motor Transportation (3)
12.563 Ocean Transportation (3)
12.564 Air Transportation (3)
12.565 Physical Distribution Management (3)
12.566 Traffic Management (3)
12.567 Rates and Tariffs (3)
12.568 Interstate Commerce Law and Commission Practice (3)
12.570 Air Traffic Control and Airport Administration (3)
12.571 Trends and Problems in Transportation (3)
12.670 Transportation Management (3)
12.760 Seminar in Transportation (3)

Thesis and Dissertation Seminars

12.797 Master's Thesis Seminar (3)
12.799 Doctoral Dissertation Seminar (3-6)

Institutes

The School of Business, in cooperation with the Division of General and Special Studies, offers a series of professional institutes planned to meet the needs of specialists in various fields to keep them abreast of the problems in their field. Separate brochures are available describing each of the institutes when scheduled.

School of Government and Public Administration

A doctoral candidate defends his dissertation

School of Government and Public Administration

Faculty Offering Graduate Courses

Professors: Francis P. Brassor, Richard M. Bray, Harold E. Davis, Charles H. Goodman, Robert E. Goostree, Lowell H. Hattery, Emmet V. Mittlebeeler, Edgar S. Robinson, Harold H. Roth, Catheryn Seckler-Hudson (Dean); Samuel L. Sharp. *Associate Professors:* Daniel M. Berman, Frederic S. Burin II, Chester B. Earle. *Assistant Professors:* Helaine M. Colton, Royce Hanson, Louis S. Loeb, Martin Meadows, Nathaniel S. Preston. *Adjunct Professors:* Herbert E. Angel, Paul Camp, Franklin G. Connor, Joseph D. Cooper, W. Phillips Davison, William E. Dewey, William R. Divine, Harold F. Gosnell, W. Brooke Graves, Morris Greene, Howard K. Hyde, Kerim Key, Martin Kriesberg, Eli E. Nobleman, Charles A. Phillips, S. McKee Rosen, O. Glenn Stahl, Ward Stewart, James D. Teller, Carl Tiller. *Professorial Lecturers:* Maurice Apstein, Ivan Asay, Robert W. Cox, Joseph F. Cunningham, Howard Gill, Oliver W. Holmes, Jarold A. Kieffer, Don R. Larson, Lyman Moore, S. J. Pomrenze, Aldo L. Raffa, Theodore R. Schellenberg, Manes Specter, Eric Willenz. *Lecturers:* Lawrence W. Acker, Lea M. Bohnert, Newton Butts, Eugene M. English, Victor H. Evjen, Edgar J. Fagan, Charles W. Fotis, Edward G. Griffin, W. Henry Hill, Arthur A. Hitchcock, Walter J. Kenneran, Edward A. Kieloch, Walter Kurylo, David D. Levine, Wilfred Lewis, Jr., Schley R. Lyons, Edward J. Mahoney, Edward M. McCormick, Charles V. Morris, William T. O'Hara, Frank W. Riley, Howard C. Reese, Sam Rothman, Louis J. Sharp, Richard C. Smolka, Russell P. Strange, Harold J. Sullivan, Robert W. Wilson, Archie M. Winfree, Marvin M. Wofsey, Robert L. Wrigley.

Graduate Degree Programs

Degrees of master of arts in government, master of arts in public administration, doctor of philosophy in government, and doctor of philosophy in public administration

Master of Arts in Government and Public Administration

Course Requirements: Minimum of 30 hours of approved graduate work including 6 hours of research, alternatives for which are listed below.

Written Comprehensive Examinations: For the degree in government, examinations in three fields including one in the general area of government in the U.S.; one in a specialized aspect of that area; and one in political institutions and theory, comparative government and administration, public administration in the U.S., or another approved

field. For the degree in public administration, examinations in three fields including one in national government, and two selected from the fields of federal budgetary administration, organization and management, public personnel administration, public relations in administration, archives administration, or another approved field.

For both degrees, a general examination in comparative government may be substituted for the general examination in the area of government in the U.S. by special permission of the Dean.

Research Requirements:

1. A thesis (including registration for 6 semester hours in 54.799 Thesis Seminar in Government and Public Administration) *or*
2. An approved case study (including registration for 6 semester hours in 54.692 Public Administration Case Study Research) *or*
3. Six semester hours of internship (field work) including registration for 54.693 Seminar: Government Interns, and a written report as prescribed in that seminar, *or*
4. Six semester hours in approved 600 or 700 level research seminars, with a grade of "B" or better for research papers in each seminar The following seminars (each 3 semester hours) are at present approved for research requirements:

53.622 Seminar: Topics in Political Thought
53.632 Problems of Legislation and Law Making
53.661 Field Study in Public Opinion and Pressure Groups
53.730 Seminar in American Government: Advanced Problems
54.612 Problems in Public Budgeting
54.621 Psychology of Management: Advanced
54.639 Case Problems in Public Administration
54.663 Trends in Personnel Management
54.710 Seminar in Budgetary Administration
54.720 Advanced Political Theory
54.724 Seminar in Human Relations in Public Management
54.725 Seminar in Organization and Management
54.740 Seminar in Political Dynamics
54.750 Seminar in U.S. Public Law
54.760 Seminar in Personnel Administration
54.770 Seminar in Comparative Government
54.780 Seminar in Metropolitan Government and Administration
54.785 Seminar in Research Administration
54.790 Seminar in Applied Research Method

Doctor of Philosophy in Government and in Public Administration

Programs leading to the Doctorate are under the general supervision of the Graduate School. Doctoral students are counseled by the School of Government and Public Administration.

Course Requirements: Minimum of 72 hours of approved graduate work, including 6 hours for dissertation. At least 30 of these hours, excluding dissertation credits, must be completed in residence at The American University. At least 18 semester hours must be at 600 and 700 level, excluding 54.799. A minimum of 54 hours must lie within the fields approved for a student's comprehensive examinations.

Written Comprehensive Examinations: For the degree in government, examinations in five fields, including one in the general area of government in the U.S. and one in a specialized field of this area; one in political theory; one in comparative government or public administration in the U.S.; and one in another approved field.

For the degree in public administration, examinations in five fields, including one in the area of government in the U.S.; three in fields in the area of public administration; and one in the field of political theory.

Additional Requirements: Proficiency examinations in two tools of research (accounting, languages, statistics); dissertation and oral examination on dissertation.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students. All courses numbered 75. are offered jointly with another School of the University.)

Fundamental Courses

53.500 The Process of Government in the U.S. (3)
53.501 The Principles and Processes of Public Administration (3)
53.502 Evolution of Public Administration (3)
53.504 Technology and Administration (3)
53.505 Technological Change and the Social Order (3)
53.508 Development of Federal Administrative Institutions in the U.S. (3)

Political Theory

53.520 Early Political Theory (3)
53.521 Modern Political Theory (3)
53.522 Workshop in Current Problems of Political Theory (3)
53.525 American Political Theory (3)
53.526 Oriental Political Theory (3)
53.527 Marxist and Non-Marxist Socialism (3)
53.620 Contemporary Ideological Issues (3)
53.621 Comparative Marxist Theories (3)
53.622 Seminar: Topics in Political Thought (3)
54.720 Advanced Political Theory (3)
75.620 Seminar on World Communism (3)

Governmental Processes and Policy Formation

21.580 Problems in Federal Educational Policy (3)
53.529 Government and National Defense (3)
53.530 The Legislative Process (3)
53.531 The National Executive (3)
53.532 The Judicial Process (3)
53.533 Legislative-Administrative Relationships (3)
53.534 Intergovernmental Relationships (3)
53.535 Formation of Public Policy (3)
53.631 Dynamics of Legislation and Law-Making (3)
53.730 Seminar in American Government: Advanced Problems (3)

Public Law

53.536 Government Regulation of Business (3)
53.537 Government Regulation of Labor (3)
53.550 Elements of Jurisprudence (3)
53.551 Comparative Legal Institutions (3)
53.552 Administrative Law (3)
53.555 Constitution of the U.S.: Development (3)
53.556 Constitution of the U.S.: Interpretations (3)
53.557 Civil Rights and Liberties (3)
53.632 Problems of Legislation (3)
54.750 Seminar in U.S. Public Law

Political Dynamics

53.503 The Public and Administration (3)
53.560 Public Opinion (3)
53.561 Public Opinion Measurement (3)
53.562 Political Parties and Electoral Problems (3)
53.563 Pressure Groups and Propaganda (3)
53.565 Participation in Politics (3)
53.566 Comparative Political Parties (3)
53.567 Governmental Reporting (3)
53.661 Field Study in Public Opinion and Pressure Groups (3)
53.664 Political Behavior (3)
54.740 Seminar in Political Dynamics (3)
75.550 International Political Communication (3)

Comparative Government and Politics

53.570 Government and Politics of Western Europe (3)
53.571 Government and Politics of Central Europe (3)
53.572 Government and Politics of Eastern Europe (3)
53.573 Government and Politics of the Soviet Union (3)
53.574 Government and Politics of the Far East (3)
53.575 Government and Politics of Latin America (3)
53.576 Government and Politics of the British Commonwealth (3)
53.577 Problems of Government in Great Britain and France (3)

53.578 Political Leadership in Latin America (3)
54.524 Comparative Public Administration (3)
54.595 Government and Politics of the Middle East (3)
54.596 Government and Politics of South Asia (3)
54.597 Government and Politics of Modern Africa (3)
54.598 Government and Politics of Southeast Asia (3)
53.678 Problems of Modern African Government (3)
53.679 Seminar in Problems of Government in Communist Countries (3)
54.770 Seminar in Comparative Government (3)
55.570 Comparative Government Workshop Abroad (3)
75.588 Regional Organization of Western Europe (3)

State and Metropolitan Studies

53.580 Current Problems in State and Local Government (3)
53.581 Comparative Local Government and Administration (3)
53.584 Metropolitan Area Planning (3)
53.585 Local Government Planning (3)
53.586 Urban Administration (3)
53.587 Municipal Financial Administration (3)
53.588 Government and Administration of Metropolitan Washington (3)
53.589 Problems of Municipal Government (3)
54.780 Seminar in Metropolitan Government and Administration (3)

Police, Traffic, and Safety

55.500 Police Investigation (3)
55.501 Accident Investigation (3)
55.502 Traffic Planning, Regulation, and Control (3)
55.503 Criminalistics (3)
55.504 Police Law and Evidence (3)
55.505 Police Administration (3)

Budgetary Administration and Fiscal Policy

54.511 Federal Budgetary Procedure (3)
54.512 Federal Fiscal Issues (3)
54.513 Governmental Supply Management (3)
54.514 Problems of Accounting in the Federal Government (3)
54.515 Comptrollership and Public Budgeting (3)
54.516 Government Purchasing and Contracting (3)
54.611 Budgeting: An Instrument of Planning and Management (3)
54.612 Problems in Public Budgeting (3)
54.710 Seminar in Budgetary Administration (3)

Organization and Management

54.520 Psychology of Management (3)
54.521 Human Relations in Public Management (3)
54.523 Development of Scientific Management (3)
54.525 Planning in Government (3)
54.526 Office Management and Control (3)

54.527 Systems Analysis and Work Measurement (3)
54.528 Production Planning and Control (3)
54.529 The Government and National Defense (3)
54.532 Problems in Government Reorganization (3)
54.538 Public Health Administration (3)
54.620 Organization and Management: Advanced (3)
54.621 Psychology of Management: Advanced (3)
54.622 Applied Administrative Management (12)
54.624 Executive Leadership in Government (3)
54.639 Case Problems in Public Administration (3)
54.724 Seminar in Human Relations in Public Management (3)
54.725 Seminar in Organization and Management (3)
75.520 Automatic Data Processing Systems (3)
75.521 Problems of Automatic Data Processing Systems (3)
75.530 Administration of Research Activities (3)
75.540 Management Problems of International Agencies (3-6)
75.557 Operations Research in Management (3)
75.785 Seminar in Research Administration I (3)
75.762 Seminar in Research Administration II (3)
75.763 Seminar in Automatic Data Processing Systems (3)

Record and Archives Administration

54.542 History and Administration of Archives: Background (3)
54.543 History and Administration of Archives: Principles and Techniques (3)
54.545 Planning and Administration of a Records Program: Creation (3)
54.546 Planning and Administration of a Records Program: Maintenance and Retirement (3)
54.547 The Arrangement and Classification of Documents and Records (3)
54.548 The Indexing of Documents and Records (3)
54.560 Management of Documentation (3)
54.691 In-Service Training Project in the National Archives (3)

Personnel Administration

53.582 Public Personnel Administration (3)
54.550 Personnel Psychology (3)
54.551 Supervision in Public Administration
54.552 Formulating Personnel Policies and Procedures (3)
54.553 Selection, Transfer, and Promotion (3)
54.555 Training and Employee Development (3)
54.556 Labor Relations in Government (3)
54.557 Counseling in Public Management (3)
54.558 Employee Evaluation I: Performance Standards and Ratings (3)
54.559 Employee Evaluation II: Testing and Measuring (3)
54.560 Employee Evaluation III: Qualifications Analysis (3)
54.561 Employee Evaluation IV: Interviewing and Personal Data Analysis (3)

54.562 Problems in Military-Civilian Management (3)
54.563 Government Personnel Problems Abroad (3)
54.663 Trends in Personnel Management (3)
54.664 Current Problems in Manpower Utilization (3)
54.755 Seminar in Employee Evaluation (3)
54.760 Seminar in Personnel Administration (3)

Intern and Field Programs

54.591 Problems in Public Administration (3)
54.592 Public Administration Intern Colloquium (3)
54.594 Public Affairs Laboratory (6)
54.691 In-Service Training Projects (3)
54.693 Seminar: Government Interns (6)
54.695 Field Study Seminar in National and State Government (3)
54.696 Field Study Seminar in Local and Urban Government (3)

Research and Reading

53.507 Research Methods in Government and Public Affairs (3)
54.690 Individual Research Project: Graduate (3)
54.692 Public Administration: Case Study Research (6)
54.790 Seminar in Applied Research Method (3)
53.797 Colloquium on Problems of Teaching Government (1)
54.799 Thesis Seminar in Government and Public Administration (3-6)

The School of International Service

School of International Service

School of International Service

Faculty Offering Graduate Courses

University Professor: CHARLES H. MALIK. *Professors:* MARY E. BRADSHAW; W. WENDELL CLELAND; HAROLD E. DAVIS; RALPH H. GABRIEL; ERNEST S. GRIFFITH (Dean); LOY W. HENDERSON; PHILIP M. KAISER; CHARLES O. LERCHE, JR.; MICHAEL LINDSAY (Lord Lindsay of Birker); RALPH L. POWELL; HAROLD M. RANDALL; DURWARD V. SANDIFER; SAMUEL L. SHARP; RICHARD W. VAN WAGENEN. *Associate Professors:* JOHN J. FINAN; EDWIN P. HOLLANDER; WILLIAM R. HUTCHISON; EMMET V. MITTLEBEELER; DARRELL D. RANDALL; ABDUL AZIZ SAID; LAWRENCE W. WADSWORTH, JR. *Assistant Professors:* CHARLES H. HEIMSATH; S. WHITTLE JOHNSTON; MILLIDGE P. WALKER; TAKEHIKO YOSHIHASHI (Assistant Dean). *Adjunct Professors:* MANUEL CANYES; LAWRENCE D. EGBERT; MORRIS GREENE; H. FIELD HAVILAND, JR.; HALFORD L. HOSKINS; KENNETH P. LANDON; ERNEST W. LEFEVER; JOHN A. MACKAY; BERNARD S. MORRIS; ELI E. NOBLEMAN; MORRIS WEISZ. *Professorial Lecturers:* ARTHUR I. GLADSTONE; JAMES V. MARTIN, JR.; DAVID J. SAPOSS; LEONARD B. TENNYSON; ERIC WILLENZ; JAN H. WSZELAKI. *Lecturers:* WILLIAM E. ARMSTRONG; LEON M. HERMAN; BRUCE H. MILLEN; OTIS MULLIKEN; HARRY H. POLLAK; ROLLIE E. POPPINO; HOWARD C. REESE; OTTO SCHALER; CHARLES T. VETTER. *Affiliated Full-Time Faculty from Other Units of the University:* LAWRENCE W. KRADER; ALBERT D. MOTT; ROGER T. SIMONDS.

Graduate Degree Programs

Degrees of MASTER OF ARTS IN INTERNATIONAL RELATIONS AND ORGANIZATION, MASTER OF INTERNATIONAL SERVICE and DOCTOR OF PHILOSOPHY IN INTERNATIONAL RELATIONS AND ORGANIZATION. Degrees of MASTER OF ARTS IN AREA STUDIES and DOCTOR OF PHILOSOPHY IN AREA STUDIES are administered by the School of International Service

Master of Arts in International Relations and Organization

Course Requirements: Minimum of 30 hours of approved graduate work, three to six of which may be in 33.797A Master's Thesis Seminar in International Relations and Organization.

Written Comprehensive Examinations: Examinations in three fields, including one in international organization and administration, international law, or theories of international relations; another from among those three fields or from among U. S. diplomacy, international communications, regional organizations, international relations of a specified area, the United Nations, national security policy, contemporary international relations, and human aspects of international relations; and any one of the foregoing or a related field.

Other Requirements: Thesis.

Master of International Service

Course Requirements: Normally, a minimum of two academic years full-time study. (A maximum of fifteen hours of undergraduate work to remove deficiencies may be included in the sixty hours which make up the usual two-year minimum requirement.) Thirty credit hours must be completed in residence at The American University.

Students who have satisfactorily completed the School's requirements for the Bachelor of Arts degree in most cases should be able to obtain the degree of Master of International Service in one additional academic year. A student graduating from another university or college who has completed an undergraduate program substantially the same as one of those offered by the School may be able to take the course or courses in which he is deficient during the preceding summer session at The American University. If such deficiencies can be thus made up, he may then satisfy the remaining degree requirements by successful completion of the final year of the program.

Written Comprehensive Examinations: Examinations in three fields, as follows, depending on the program selected:

for the Foreign Service program: international organization and administration; U.S. diplomacy *or* U.S. diplomatic history; an approved third field.

for the Business Representation Overseas program: international economics *or* economic problems of underdeveloped areas *or* comparative economic systems; cultural area analysis *or* an area comprehensive; an approved third field.

for the Church Missions program: comparative religion; an area comprehensive; an approved third field.

for the Overseas Representation program: cultural area analysis; an area comprehensive; international communications.

for the International Administration program: international organization and administration; public administration; an approved third field.

for the Overseas Labor program: international labor problems; history of the labor movement; an approved third field.

Other Requirements: Reading and speaking knowledge of a foreign language. A thesis is required in the International Administration program. Other programs include the option of either writing a thesis or completing a substantial research paper in connection with one of the courses or seminars. (See also the catalog of the School of International Service.)

Doctor of Philosophy in International Relations and Organization

Programs leading to the Doctorate are under the general supervision of the Graduate School. Doctoral students are counseled by the School of International Service.

Course Requirements: Minimum of 72 hours of approved graduate work, including not more than six hours for dissertation. At least 30 of these hours, excluding dissertation credit, must be completed in residence at The American University. A minimum of 54 hours must lie within the fields approved for a student's comprehensive examinations.

Written Comprehensive Examinations: Examinations in five fields, including two from among international organization and administration, international law, and theories of international relations; one selected from among U. S. diplomacy, international communications, regional organizations, international relations of a specified area, the United Nations, national security policy, contemporary international relations, and human aspects of international relations; one in a related field in another school or department; and one from any of the foregoing fields.

Other Requirements: Proficiency examinations in two tools of research (two languages or one language and statistics in case of an Economics concentration); dissertation and oral examination on dissertation.

Master of Arts in Area Studies

Course Requirements: Minimum of 30 hours of approved graduate work, six of which may be in 33.797B Area Studies Master's Thesis Seminar.

Written Comprehensive Examinations: Examinations in three fields, including a general examination in the area (may be waived if two semesters of the intensive integrated seminar have been satisfactorily completed within 12 months before the examinations are taken); a specialized field of economics, government, history, international relations and organization, etc., within the same area; and an approved third field (not necessarily area-connected).

Other Requirements: Proficiency examination in a language of the area selected; a thesis or completion of two seminars requiring substantial research or approved research projects (33.690).

See also page 13.

Doctor of Philosophy in Area Studies

Course Requirements: Minimum of 72 hours of approved graduate work, including not more than six hours for dissertation. At least 30 of these hours, excluding dissertation credit, must be completed in residence at The American University; a minimum of 54 hours must lie within the fields approved for a student's comprehensive examinations.

Written Comprehensive Examinations: Examinations in five fields, including a general examination in the area; three specialized fields of economics, history, international relations and organization, etc., within the same area; and an approved field from a discipline (not necessarily area-connected).

Other Requirements: Proficiency examinations in two languages, at least one of which must be of the area selected; dissertation and oral examination on dissertation.

See also page 13.

Advanced Courses

(500-level courses are open to advanced undergraduate and graduate students; 600- and 700-level courses are open only to graduate students.)

33.500 Introduction to International Law (3)
33.504 Seminar: The Civilization of the United States (3)
33.510 American Diplomacy (3-6)
33.512 Problems in Diplomacy (3)
33.513 Contemporary International Politics (3)
33.516 International Relations Between the Wars (3)
33.517 Diplomacy of World War II (3)
33.518 American Diplomatic and Consular Practice (3)
33.519 Values and Objectives in Foreign Policy (3)
33.530 Canadian-American Relations (3)
33.541-42 World Labor and Contemporary International Relations (3)
33.543 Labor and U.S. Foreign Policy (3)
33.550 International Organization and Administration (3-6)
33.551 United Nations Organization and Functions (3)
33.552 United Nations Economic and Social Operations (3)
33.561 History and Theory of International Law (6)
33.562 Contemporary Problems in International Law (6)
33.563-4-5-6 Problem Papers (3)
33.567 Theory of International Relations (3-6)
33.568 Liberal Theories of World Politics (3)
33.573 National Security Policy—Seminar (6)
33.605 Seminar: Interpreting American Civilization Abroad (3)
33.638 Information and Persuasion in Cross Cultural Contacts (3)
33.654 Inter-American System (3)
33.655 The U.S. & International Organization (3)
33.662 Seminar: Law and Procedure of International Tribunals (3)
33.670 Comparative Foreign Policy Formation (6)
33.675 Seminar on the United Nations (3-6)
33.677 Seminar in International Labor Relations (3)
33.690 Individual Research Project: Graduate (3)
33.700 Seminar in Contemporary International Relations (3)
33.710 Seminar in Theories of International Relations (3)

33.750 Seminar in International Organization and Administration (3)
33.770 Seminar in International Law (3)
33.797A Master's Thesis Seminar: International Relations and Organization (3-6)
33.797B Master's Thesis Seminar: Area Studies (3-6)
33.799A Doctoral Dissertation Seminar: International Relations and Organization (3-6)
33.799B Doctoral Dissertation Seminar: Area Studies (3-6)
75.539 Foundations of International Communication (3)
75.540 Seminar in International Administration (3-6)
75.550 International Political Communication (3)
75.558 Regional Organization of Western Europe (3)
75.569 Philosophical Issues in World Relations (3)
75.572 History of International Labor Movement (3)
75.574 Labor and Manpower Problems of American Business Overseas (3)
75.575 Social & Labor Problems of Underdeveloped Areas (3)
75.620 Seminar in World Communism (3)

Institute

31.540 Institute on the Position of the United States in World Affairs. (4, 5 or 6)

See School of International Service literature for requirements.

Area Studies

Courses and seminars in area studies appear as an integral part of a number of graduate programs. These are of three general types: (a) introductory survey courses for particular areas (open only to undergraduates), (b) special aspects of particular areas, and (c) integrated intensive seminars dealing organically with all major aspects of an area.

A number of courses dealing with special aspects of a particular area are offered by the Departments of History, Economics, Education, Philosophy and Religion, and Sociology and Anthropology, by the School of Government and Public Administration, and by the School of International Service. These are planned on what is basically a three-year cycle and are designed in order to enable part-time students to take the same work as full-time students. Credit ordinarily may not be earned for these courses at the 500 level if the student takes one of the integrated intensive seminars in the area in question.

See page 13 for areas in which Area Studies are offered.

Integrated Seminars

Students taking these seminars may not obtain academic credit for overlapping courses in special aspects, or if such courses have been taken the integrated seminar will carry correspondingly less credit.

33.580-1 Seminar in the Middle East (9)
33.582-3 Seminar in the Soviet Union and Eastern Europe (9)
33.584-5 Seminar in Latin America (9)
33.586-7 Seminar in South and Southeast Asia (9)
33.588-9 Seminar in the Far East (9)
33.593 Western Europe-Common Elements (6)
33.594 Western Europe (France as the "lead country") (6)
33.595 Western Europe (Great Britain as the "lead country") (6)
33.596 Western Europe (Germany as the "lead Country") (6)
33.597-8 Seminar on Africa (6)

Advanced Integrated Seminars on Problems (May be taken twice for credit.)

33.781 Seminar on China (3)
33.782 Seminar on Japan (3)
33.783 Seminar on the Soviet Union (3)
33.784 Seminar on Latin America (3)
33.785 Seminar on India (3)
33.786 Seminar on Middle East (3)

Specialized Aspects (by Area)

All courses carry three semester hours credit unless otherwise specified. Additional courses will be offered from time to time by the departments concerned, and not all these courses are offered in any one year.

Asia (General)

19.586 Economic Problems: Asia
21.616 Comparative Education II (The Orient)
53.526 Oriental Political Theory

Far East (East Asia)

19.785 Seminar in Economic Problems of the Far East
29.535 History of the Far East in Modern Times
29.538 History of China Since the Ming Dynasty
29.539 History of Japan: 1600 to the Present
29.585 Chinese Intellectual History
29.730 Research Seminar in the History of the Far East
33.528 Far East in World Affairs
53.574 Government and Politics of the Far East
65.539 Culture Area Analysis: China
75.622 Seminar: Sino-Soviet Peoples and Problems

South and Southeast Asia

29.580 History of India I
29.581 History of India II
33.526 India in World Politics
33.527 Southeast Asia International Relations
33.545 Labor in an Area: South and Southeast Asia
54.596 Government and Politics of South Asia
54.598 Government and Politics of Southeast Asia
65.539 Culture Area Analysis: India

Middle East and North Africa

19.585 Economic Problems: Middle East
29.533 History of the Balkans and Turkey
29.561 History of the Middle East I
29.562 History of the Middle East II
29.760 Research Seminar in the History of the Middle East
33.525 Middle East International Relations
33.531 Soviet in the Middle East
33.545 Labor in an Area: Middle East
33.569 Nationalism in the Middle East
47.550 Studies in non-Christian Religion
54.595 Government and Politics of the Middle East
65.539 Culture Area Analysis: Middle East and North Africa

Soviet Union and Eastern Europe

19.589 Economic Problems: Soviet Union
19.584 Structure and Operation of the Soviet Economy
19.783 Seminar on the Economy of the Soviet Union
29.530 History of Czarist Russia
29.531 Russia since 1917
29.532 History of East Central Europe
29.533 History of the Balkans and Turkey
29.710 Research Seminar in European History
33.622 Soviet Russia in World Affairs
33.531 Soviet in the Middle East
33.532 International Relations of Eastern Europe
53.572 Government and Politics of Eastern Europe
53.573 Government and Politics of the Soviet Union
53.679 Seminar in Problems of Government in Communist Countries
65.539 Culture Area Analysis: U.S.S.R.
75.622 Seminar: Sino-Soviet Peoples and Problems
75.624 Seminar: Sino-Soviet Border Problems

Western Europe

7.500 Renaissance Painting
7.501 Modern Painting
7.506 Renaissance Sculpture
7.507 Modern Sculpture
19.583 Economic Problems: Western Europe
21.615 Comparative Education I: The Western World
29.511 History of Europe: 1815-1870
29.512 History of Europe: 1870-1914
29.513 Europe since 1914
29.516-7 Economic History of Modern Europe I & II
29.519 Diplomatic History of Europe: 1815-1914
29.528 Germany since 1870
29.611 Intellectual History of Europe From the French Revolution
29.710 Research Seminar in European History
33.520 Central and Western Europe International Relations
33.545 Labor in an Area: Western Europe
43.500 Music: The Baroque Era
43.501 Music: The Classic Era
53.521 Modern Political Theory
53.551 Comparative Legal Institutions
53.566 Comparative Political Parties
53.570 Government and Politics of Western Europe
53.571 Government and Politics of Central Europe
53.577 Government and Politics of Great Britain and France
53.581 Comparative Local Government and Administration
54.524 Comparative Public Administration
55.570 Comparative Government Workshop Abroad (6)
65.580 Religious Movements and Institutions
75.558 Regional Organization of Western Europe

Latin America

19.582 Economic Problems: Latin America
27.532 Geography of Latin America
29.570 Colonial Origins of Latin American Nations
29.571 Growth of Latin American Nationalism
29.572 Latin America in the 20th Century
29.573 Latin American Social and Political Thought
33.529 International Relations of Latin America
33.545 Labor in an Area: Latin America
33.654 The Inter-American System
33.651 Agrarian Problems of Latin America
53.575 Government and Politics of Latin America
53.578 Political Leadership in Latin America
65.539 Culture Area Analysis: Middle America

Africa

33.523 Problems of Contemporary Africa
54.597 Government and Politics of Africa
65.539 Culture Area Analysis: Africa South of the Sahara

Comparative Courses

19.554 Comparative Labor Relations
19.588 Comparative Foreign Economic Policies
19.595 Comparative Economic Systems
53.524 Comparative Public Administration
53.551 Comparative Legal Institutions
53.581 Comparative Local Government and Administration
54.770 Seminar in Comparative Government
55.570 Comparative Government Workshop Abroad (6)

Courses Offered in Other Schools and Departments Required in One or More Programs of the School of International Service

Business Administration

10.500 Business-Government Relationships
11.526 Introduction to International Business

(See the catalog for the School of Business Administration)

Communications

For mass media courses which would satisfy the requirements of Program D, consult the University's current Session Course Announcement

Economics

19.550 History of the United States Labor Movement
19.552 Labor and the Economic Order
19.580 International Economic Relations
19.587 Foreign Economic Problems: Problems Confronting the U. S.
19.581 Economic Problems of Underdeveloped Countries

(See also courses in economics of specific areas.)

Education

21.581 Issues and Programs of International Education

Government

53.521 Modern Political Theory (3)
53.522 Workshop in Current Problems of Political Theory (3)
53.555 Constitution of the United States: Development (3)
53.556 Constitution of the United States: Interpretation (3)
53.560 Public Opinion (3)
53.563 Pressure Groups and Propaganda (3)

(See also courses in government of specific areas in the catalog of the School of Government and Public Administration.)

History

29.519 Diplomatic History of Europe 1815-1914 (3)
29.547 History of United States Foreign Policy (3)

(See also courses in history of specific areas.)

Philosophy and Religion

47.530 Social Philosophy (3)

The following courses may be taken at the Wesley Theological Seminary:

Sem. 710 Survey of World Missions
Sem. 712 Missionary Methods
Sem. 451 Liturgy and Sacraments
Sem. 502 Christianity and the Social Order

(See also courses in philosophies and religions of specific areas.)

Psychology

57.530-1 Social and Psychological Aspects of International Relations (3-6)

Sociology and Anthropology

65.534 Cultural Analysis (3)

An honorary degree is awarded

Doctoral Dissertations, 1946—1961

Adams, Quincy—Possible Revisions of Federal Agricultural Policies with Special Reference to the Brannan Plan (*Economics,* 1952)

Adham, Mohammed I.—Special Problems of Government in the Arab States of the Middle East (*Political Science,* 1954)

Alam, Abdel Raouf Abu—The Sudan in World Affairs, 1820-1956 (*International Relations and Organization,* 1956)

Alexander, A. John—The First World War in American Thought to 1929 (*History,* 1951)

Allen, Edward Lawrence—The Aluminum Industry and the United States Government (*Economics,* 1948)

Allen, Philip James—Upward Mobility within a Profession (*Sociology,* 1954)

Anderson, Carl Dicmann—The History and Evolution of Seventh-Day Adventist Church Organization (*History,* 1960)

Aridi, Bashir A.—Parties and Politics in the Lebanese Society (*Government and Public Administration,* 1956)

Austin, Henry—India in Asia 1947-54 (*International Relations and Organization,* 1957)

Ayoubi, Mohamed Sadek—A Central Bank for Syria (*Economics,* 1952)

Bain, Chester Arthur—The History of Viet-Nam from the French Penetration to 1939 (*History,* 1956)

Barber, Theodore Xenophon—The Relationship of "Drowsiness" and "Light Sleep" to the First, Second and Third States of Hypnosis (*Psychology,* 1956)

Barmby, John Glennon—Indices of Utilization of Funds and Personnel for Naval Research (*Public Administration,* 1957)

Barnard, Bernard Lester—The Legislature of Kansas, An Appraisal (*Political Science,* 1949)

Bass, Charles White—United States Policy Concerning Military Air Power in the Period to 1936 (*International Relations and Organization,* 1954)

Beall, Lee Morrett—Elementary and Junior High School Voice Training, Visual Analysis, and Aesthetics of Listening: An Analysis of the Literature and an Application in a Specific Area (*Education,* 1958)

Blackstock, Paul William—Covert Political Warfare (*International Relations and Organization,* 1954)

Bloom, Max Robert—Economic Criteria and the Use of Land in Subsidized Urban Redevelopment Areas (*Economics,* 1959)

Blue, John Titus—An Empirical Study of Parent-Child Relations: Matricentrism in the Southern Family (*Sociology,* 1958)

Bluestone, David W.—The Problem of Competition Among Domestic Trunk Airlines (*Economics,* 1953)

Bock, Robert Leroy—Subhas Chandra Bose, Bengali Revolutionary Nationalist, 1897-1945 (*Government,* 1960)

Bonnell, Helen Marie—Foreign Economic Relations in the Development of Iran (*International Relations and Organization,* 1957)

Bornstein, Harry—Attitude Inconsistency and Scaling Methodology (*Psychology,* 1954)

Breimyer, Harold Frederick—Analysis of Factors Affecting the Determination of Prices of Meat and Meat Animals, in Both the Short and Long Run (*Economics,* 1960)

Broder, Simon—A Comparative Study of the United States Patent Office and the German Patent Office (*Government,* 1960)

Brodsky, Nathan—Devaluation and the British Dollar Gap in the Postwar Period 1946-55 (*Economics,* 1959)

Brown, Donald Perl—The Administrative Budget of UNRRA (*Public Administration,* 1952)

Brown, William Henry—Judicial Review of Congressional Investigative Powers with Special Reference to the Period 1945-1957 (*Government,* 1959)

Browning, Rufus Charles—The Use of Scientific Findings by Marriage Counselors (*Psychology*, 1955)

Bryan, Ernest Rowlett—An Administrative History of the U. S. Naval Photographic Center 1941-1951 with Recommendations for Reorganization (*Public Administration*, 1953)

Buck, James Harold—The Satsuma Rebellion of 1877: An Inquiry into Some of Its Military and Political Aspects (*History*, 1959)

Budhraj, Vijay Sen—The Soviet Image of India (*International Relations and Organization*, 1958)

Bullockus, Theodore—Transportation in Thailand (*International Relations and Organization*, 1957)

Burk, Monroe—Some Methodological Issues in the Determination of the Distributive Share of Labor (*Economics*, 1950)

Bush, George Pollock—The General Staff Concept and Its Application in Public Administration (*Public Administration*, 1949)

Byrd, Elbert M., Jr.—Treaties and Executive Agreements: Their Separate Roles and Limitations (*Government*, 1959)

Cannon, M. Hamlin—The "Gathering" of British Mormons to Western America: A Study in Religious Migration (*History*, 1950)

Cannon, William John—A Study of the Use of Psychological Concepts: Approaches and Methods by Pastoral Counselors (*Psychology*, 1959)

Carpenter, James Walter—The Jewish Educational System in Palestine During the Time of Jesus (*Education*, 1959)

Chatti, Bourhan Taher—The Fiscal System and Economic Development in Syria (*Economics*, 1957)

Choffy, S. Clark—The Diplomacy of Norway 1939-1945 (*International Relations and Organization*, 1960)

Chung, Han-Pom—The Republic of Korea in Power Politics (*International Relations and Organization*, 1952)

Cisin, Ira Hubert—An Approach to the Sampling Distribution of Guttman's Coefficient of Reproducibility (*Statistics*, 1957)

Clarke, John Maurice—The Process of Formulating and Authorizing the Budget of the Commonwealth Government of Australia (*Public Administration*, 1960)

Clem, Alan Leland—Analysis of the 1958 Congressional Campaign in the Third District of Nebraska (*Government*, 1960)

Colmen, Joseph G.—Objective Selection of Supervisory Personnel in Public Management (*Public Administration*, 1953)

Colmen, Kenneth Seymour—A Quantitative Analysis of Scientific Research and Development in American Industry (*Economics*, 1956)

Colwell, James Morrison—The Relation of Controlling and Hostile Attitudes of Mothers to Certain Personality Traits in Children (*Psychology*, 1961)

Cooper, Chester L.—Moneylenders and the Economic Development of Lower Burma: An Exploratory Historical Study of the Role of the Indian Chettyars (*Economics*, 1959)

Cooper, Joseph David—Decision-Making and the Action Process in the Department of State (*Public Administration*, 1951)

Cooper, Morton—Differences in Self-Perception among Physically Dependent Drug Addicts, Alcohol Addicts, and Controls (*Psychology*, 1958)

Copenhaver, Harold Leroy—An Historical Investigation of Music Education in the United States Air Force (*Education*, 1961)

Costa-Minneci di Villareal, Joyce—The Montessori Elementary Curriculum Content and the Corresponding American Curriculum Content: A Cross-Cultural Study (*Education*, 1958)

Cottle, Sidney Charles—Our Flexible Tariff: A Study of the Nature of the Reciprocal Trade Agreements Program, and Through a Case Study, a Measurement of Its Effectiveness (*Economics*, 1946)

Crandall, Burton Benjamin—Nation-Wide Organizations in the Intercity Bus Industry (*Economics*, 1955)

Criswell, Howard Donald—Urban County Government, a Survey of the Arlington County, Virginia, Government (*Government and Public Administration,* 1956)

Cummins, William Edwin—The Wave Resistance of a Floating Slender Body (*Mathematics,* 1956)

Daenecke, Eric—A Study of the United States General Accounting Office with Emphasis on the Period Since 1938 (*Public Administration,* 1950)

Dajany, Omar—The World Bank and The International Finance Corporation (*International Relations and Organization,* 1956)

Darling, Frank Clayton—American Influence on the Evolution of Constitutional Government in Thailand (*Government,* 1961)

Dator, James Allen—The Government of the Protestant Episcopal Church in the United States of America: Confederal, Federal, or Unitary (*Government,* 1959)

Davis, Thomas Jefferson—The Impact of National Aggregates on Textile Fiber Consumption in the United States Since World War II (*Economics,* 1955)

Deutrich, Mabel E.—Fred C. Ainsworth: Army Surgeon and Administrator (*Public Administration,* 1960)

Dibble, Ernest F.—Reinhold Niebuhr's Search for Social Justice (*History,* 1959)

Didsbury, Howard Francis, Jr.—Whitehead's Interpretation of History (*History,* 1960)

Dorsey, Emmett E.—The Evolution of the Concept of the Welfare State in the United States Since 1890 (*Political Science,* 1953)

Dreis, Thelma Agnes—The Department of Agriculture's Sample Interview Survey as a Tool of Administration (*Public Administration,* 1950)

Ducoff, Louis Joseph—Employment, Income, and Wages in Agriculture with Explorations of Production Function Techniques for Measuring Marginal Productivity of Labor and Capital in Agriculture (*Economics,* 1949)

Dunn, Theodore Franklin—Assumed Racial Similarity as Related to Attitudes Toward Integration (*Psychology,* 1958)

Eastin, Roy Brandon—The Supervision Improvement Program of the Government Printing Office (*Public Administration,* 1953)

Eilers, R. M.—Postwar Western Germany, Aspects and Problems of Foreign Policy, 1945-1955 (*International Relations and Organization,* 1956)

El-Adly, Ibrahim Khalil—Industrialization of Syria (*Economics,* 1952)

El-Mutwalli, Tariq Nuri—The Tax System of Iraq: A Study of Taxation in a Developing Country (*Economics,* 1958)

El-Saghieh, Khaled Ibrahim—Nationalism in Morocco, a Study of Recent Developments with Special Reference to the Moroccan Question in the United Nations (*International Relations and Organization,* 1955)

Enarson, Harold Leroy—"Fact-Finding" as a Technique for Settlement of National Emergency Labor Disputes (*Political Science,* 1951)

Enterline, Philip Ernest—A Study of Factors Associated with Male-Female Differentials in Mortality (*Sociology,* 1960)

Fedder, Edwin H.—The Privileges and Immunities Granted by the United States to the United Nations and to the Specialized Agencies (*International Relations and Organization,* 1958)

Finler, Bennett—Analysis of Capital Consumption and Replacement for the Firm and for the Economy (*Economics,* 1957)

Finnegan, Harold Ellsworth—Selected Indices of Manpower Management and an Interpretation of their Statistical Application in Portions of a Large Federal Mental Hospital, 1948-1951 (*Public Administration,* 1956)

Fitzpatrick, Richard Stanislaus—A Study of the Relationship of Social Class and Opinion in Rio de Janeiro, Brazil (*Psychology,* 1959)

Fotis, Charles William—Organization and Policy Control for Scientific Research and Development in the Federal Government (*Public Administration,* 1959)

Fotis, Evan—Land Tenure and Rural Organization in Turkey Since 1923 (*International Relations and Organization,* 1957)

Fox, James Harold—The Church Self-Survey: A Methodological Inquiry (*Sociology,* 1956)

Fredland, John Roger—Keynesian Ideas as Reflected in the Domestic Fiscal and Monetary Policies of the United States (*Economics*, 1957)

Friend, Irwin—Volume and Composition of Individuals' Saving in the United States (*Economics*, 1953)

Gareau, Frederick Henry—A Critical Examination of United States Policy Toward German Industrial Disarmament (*International Relations and Organization*, 1957)

Garfinkle, Stuart Harold—Tables of Working Life for Women (*Sociology*, 1958)

Gasser, Robert Louis—The Confidence World as a Criminal Behavior System (*Sociology*, 1955)

Geller, Irving—The Effect of Electro-Convulsive Shock on a Punishment Discrimination and on an Extinguished Punishment Discrimination (*Psychology*, 1957)

Gendebein, Albert W.—Commercial Relations Between the Kingdom of Sardinia and the United States of America, 1820-1848 (*History*, 1951)

Ghalayini, Khalil A.—A Plan for the Organization of an Arab Federation (*Public Administration*, 1956)

Gilgash, Curtis Arnold—A Study of the Effects of Thorazine on the Social, Emotional, and Intellectual Functioning of Testable Institutionalized Adult Catatonic Schizophrenics (*Psychology*, 1956)

Goldberg, Benjamin—Price Control During the Korean Emergency: The Petroleum Industry in the United States (*Economics*, 1957)

Goldberg, Karl—The Formal Power Series for $LOGe^{x}e^{y}$,II (*Mathematics*, 1957)

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Jones, Roy Junios—The Effects of Inter-Ethnic Group Contact in a Desegregated Hospital Community (*Psychology*, 1961)

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Karch, John J.—Czech-Soviet Relations: 1938-1948 (*International Relations and Organization*, 1951)

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Kaufman, Robert W.—An Examination of Selected Non-Governmental Associations Which Attempt to Influence the Formation of Federal Public Policy in the United States (*Public Administration*, 1961)

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Key, Kerim K.—The Ottoman Intellectuals and the Young Turk Reformation of 1908 (*History*, 1950)

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Khabiri, Cyrus Hossein—The Position of Iran in Contemporary Great Power Politics (*International Relations and Organization*, 1959)

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Kiernan, Bernard Peter—A Study of International Master Chess, 1851-1941—A Study in Modern Institutional History (*History*, 1957)

Kliston, Theodore S.—Development of Common Stock Investment Media in the United States (*Economics*, 1956)

Korgan, Julius—Farmers Picket the Depression (*History*, 1961)

Koury, Enver M.—Iraq in Transition (*International Relations and Organization*, 1958)

Krieger, Joseph Leo—Executive Development for Effective Executive Performance and Executive Success (*Public Administration*, 1956)

Kshirsagar, Shiwaram Krishnarao—Development of Relations Between India and the United States, 1941-1952 (*International Relations and Organization*, 1957)

Kurkjian, Badrig Malcolm—A General Theory for Asymmetrical, Confounded, Factorial Experiments (*Statistics*, 1960)

Kurylo, Walter—A Study of the Federal-Aid Highway Program with Special Emphasis on Its Major Budgetary and Planning Aspects (*Public Administration*, 1960)

La Gaipa, John James—An Analysis of Authoritarian Submission and Hostility Toward Authority by the Use of Humor and a Semi-Projective Technique (*Psychology*, 1957)

Lander, Ezra—Performance Budgeting and Accounting Policy in the Department of the Army (*Public Administration*, 1961)

Latour, Conrad C. F.—Germany, Italy and the South Tyrol, 1938-1945 (*History*, 1956)

Levine, David D.—The Executive Order: A Form of Presidential Participation in the Legislative Process (*Public Administraton*, 1955)

Levine, Eugene—A Comparative Analysis of the Administration of Nursing Services in a Federal and Non-Federal General Hospital (*Public Administration*, 1960)

Levine, Milton—Reorganization Plans Submitted by the President to the 83rd Congress (*Public Administration*, 1956)

Lewis, Harold O.—Land Reform and Resettlement in Germany: A Study of the Post-War Programs for Rural Reconstruction, 1945-1950 (*History*, 1952)

Lewis, William Hubert—Morocco: The Impact of Social and Political Evolution on Foreign Policy (*International Relations and Organization*, 1960)

Lieb, Bernard—Government and Administration in the New India (*Public Administration*, 1953)

Lieblein, Julius—A New Method of Analyzing Extreme-Value Data (*Mathematics*, 1953)

Liebling, Herman I.—Financing the Postwar Expansion of Business: An Industry Analysis (*Economics*, 1961)

Lindveit, Earl Wayne—Scientists in Government: A Background Study of the Retention of Scientific Personnel in Federal Employment (*Public Administration*, 1958)

Link, Mae Mills—Kierkegaard's Way to America: A Study in the Dissemination of His Thought (*History*, 1951)

Lippitt, Gordon L.—Effects of Information About Group Desire for Change on Members of a Group (*Psychology*, 1959)

Little, Edward Southard—National Resources of Spain as a Basis for an Industrial Economy (*Economics*, 1959)

Lykes, William Hubert—Morocco: The Impact of Social and Political Evolution on Foreign Policy (*International Relations and Organization*, 1960)

Lyon, Robert—Intercontinental Air Travel: A Balance-of-Payments Factor (*Economics*, 1952)

MacQuivey, Donald Ross—Frequency Assignment Administrative Control (*Public Administration*, 1956)

Makdisi, Nadim K.—The Syrian National Party—A Case Study of the First Inroads of National Socialism in the Arab World (*International Relations and Organization*, 1960)

Mann, Vera Deane—A Study of the Attitude of Mothers of Cerebral Palsied Children Toward Child Adjustment (*Psychology*, 1957)

Margrave, Robert N.—Policy of the United States Respecting the Development of International Adjudication (*International Relations and Organization*, 1950)

Marshall, William Edgar—The Administrative Organization and Operation of the Food and Agriculture Organization of the United Nations, 1945-51: A Critical Analysis (*International Relations and Organization*, 1951)

Maslow, Albert R.—Some Relationships Between Social Conformity and Self-Perception (*Psychology*, 1961)

Matsumoto, Yoshiharu Scott—A Survey of Sociological Research in Japan (*Sociology*, 1957)

McClellan, Willard Cave—A History of American Military Sea Transportation (*History*, 1953)

McCoy, Donald Richard—New Party Politics in the New Deal Era: A Historical Study of Four Attempts to Form a New, National Political Party in the United States, 1929-1938 (*History*, 1954)

Miller, Boulton Bainbridge—Management Surveys in the Department of the Army (*Public Administration*, 1961)

Miller, Clifford John—Budget Structure, Budget Control, and Program Control: A Study with Particular Reference to the Financing of Certain Business-Type Activities of the Department of Defense (*Government*, 1959)

Miller, Herman P.—Some Factors Affecting Personal Income Distribution in the United States (*Economics*, 1954)

Minai, Ahmad—Economic Development of Iran Under the Reign of Reza Shah (1926-1941) (*Economics*, 1961)

Mitchell, Edward Lonnie—The Effect of Tranquilizing Drugs on Conditioning Rate of GSR in a Group of Psychiatric Patients (*Psychology*, 1958)

Montano, Serverino Medina—The Administrative History of the American National Theatre and Academy (*Public Administration*, 1949)

Morales-Yordan, Jorge—The United States and Non-Self-Governing Areas: A Study of the Relationship of the United States and the United Nations under Chapter XI of the Charter (*International Relations and Organization*, 1959)

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Nasir, Khalil Ahmad—The Foreign Relations of Pakistan: First Ten Years (*International Relations and Organization*, 1957)

Naseem, Haneef Ahmed—The Economic Growth of Pakistan (1947-57)—A Critical Study in Retrospect (*Economics*, 1960)

Neel, Virginia Payne—Major Contributions of Brazil to the Theory and Practice of International Organization and Procedure from 1889-1949 (*International Relations and Organization*, 1951)

Obern, Alfred Gaylord—Selected Regional International Organizations: A Comparative Study in International Administration (*Political Science*, 1955)

Osterbind, Carter Clarke—An Appraisal of the Usefulness of Partial Equilibrium Theory in Marketing Research and Analysis (*Economics*, 1953)

Pasha, Zahida Hamid—Ibn Khaldun, Sociologist: A Fourteenth Century Pioneer (*Sociology*, 1951)

Patino, Abelardo—The Political Ideas of the Liberal and Conservative Parties in Colombia during the 1946-1953 Crisis (*Political Science*, 1955)

Patrick, Arthur Shepard—An Analysis of the Duties and Responsibilities of the First-Line Office Supervisor in Government (*Public Administration*, 1956)

Patterson, Stewart Marshall—The Use of International Executive Agreements in the Foreign Assistance and Mutual Security Programs (*International Relations and Organization*, 1957)

Patwary, Kamini Mohan—Error and Non-Error Models in Bio-Assay (*Statistics*, 1960)

Pelissier, Raymond Francis—The Contribution of Certain American Business Firms to the Economic Development of Mexico since World War II (*Economics*, 1958)

Persh, Louis—An Analysis of the Agricultural Migratory Movements on the Atlantic Seaboard and the Socio-Economic Implications for the Community and the Migrants, 1930-1950 (*Sociology*, 1953)

Perusse, Roland Irving—A Study of the Problems of Contemporary Germany (*International Relations and Organization*, 1955)

Peters, Julius Melvin—The Relationship of Sociometric Ratings, Aptitude Scores, Scholastic Achievement, Athletic Achievement, and Other Background Factors to Proficiency of Performance (*Psychology*, 1954)

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Pinckett, Harold Thomas—Gifford Pinchot and the Early Conservation Movement in the United States (*History*, 1953)

Pincus, Joseph—The Foreign Economic Policies of Brazil Since 1939 (*International Relations and Organization*, 1953)

Poffenberger, Paul Routzahn—Problems of Security for Farmers in the United States with a Case Study on the Extension of Social Security to Farmers in Maryland (*Economics*, 1953)

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Raj, Hilda—Persistence of Caste in South India—An Analytical Study of the Hindu and Christian Nadars (*Sociology*, 1958)

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Raymond, Edward Ashwell—The Juridical Status of Persons Displaced from Soviet and Soviet-Dominated Territory (*International Relations and Organization*, 1952)

Reque Alcocer, Luis—The Organization of American States with Special Reference to Problems of International Administration (*International Relations and Organization*, 1953)

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Sharron, Arthur O.—An Analysis of Japan's External Disequilibrium Ten Years After the End of World War II (*Economics*, 1958)

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Williams, Chancellor—The Socio-Economic Significance of the Store-Front Church Movement in the United States Since 1920 (*Sociology*, 1949)

Williams, Lorraine Anderson—The Civil War and Intellectuals of the North (*History*, 1955)

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Yoon, Young Kyo—United Nations Participation in Korean Affairs: 1945-1954 (*International Relations and Organization*, 1959)

Yunus, K.—Indonesian Independence: Developments and Sequel (*International Relations and Organization*, 1954)

Zanotti, Isidoro—Judicial Settlement of Inter-American Legal Disputes (*International Relations and Organization*, 1958)

Zelen, Marvin—Combining Independent Tests of Significance for Incomplete Block Designs (*Statistics*, 1957)

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The **full Faculty** of the College and each School in the University is listed in the **catalog of the appropriate school or college.**

Most members of the Faculty teach at least one course that gives graduate credit. These members are listed in **this catalog at the head of each School or Departmental program.**

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W. Donald Bowles, Chairman, Department of Economics

Richard M. Bray, Associate Dean of Faculties and Dean of the Division of General and Special Studies

Alfred B. Chaet, Professor of Biology

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Ernest S. Griffith, Dean, School of International Service

Ralph C. John, Dean, College of Arts and Sciences

Nikos G. Photias, Professor and Assistant Dean for Ph.D. Program, School of Business Administration

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Graduate School Faculty

as of January 1, 1962

(date in parenthesis is date of first appointment to University Faculty)

Professors

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Nathan A. Baily (1946), B.S.S., College of the City of New York; M.A., Ph.D., Columbia. *Professor of Business Administration and Finance. Dean, School of Business Administration.*

Merritt C. Batchelder (1935), B.A., Hillsdale; M.A., Columbia; Ph.D., State University of Iowa. *Professor of English.*

Mary E. Bradshaw (1950), B.A., Chatham College; M.A., Ph.D. Wisconsin. *Professor of International Relations.*

David J. Brandenburg (1948), B.A., Bowdoin; M.A., Ph.D., Columbia. *Professor of History.*

Richard M. Bray (1954), B.A., M.A., Colorado. *Professor of Urban Studies. Associate Dean of Faculties; Dean, Division of General and Special Studies.*

Sumner O. Burhoe (1956), B.S., Massachusetts; M.S., Kansas State; Ph.D., Harvard. *Professor of Biology. Chairman, Department of Biology.*

Samuel Engle Burr, Jr. (1947), Litt. B., Rutgers; M.A. Wisconsin; M.A., Columbia; Ed.D., Cincinnati. *Professor of Education. Director of Off-Campus and In-Service Education Programs.*

Alfred B. Chaet (1958), B.S., M.S., Massachusetts; Ph.D., Pennsylvania. *Professor of Biology.*

Charles M. Clark (1941), B.A., M.A., Ph.D., Cornell. *Professor of English. Chairman, Department of English.*

W. Wendell Cleland (1958), B.A., Westminster College; M.A., Princeton; Ph.D., Columbia. *Professor of Middle Eastern Studies.*

Frank G. Coolsen (1961), B.S., Northwestern; M.S., Ph.D., Illinois. *Professor of Business Administration.*

Ernst Correll (1929), Dr. oec. publ., Munich. *Professor of Economic History.*

Harold E. Davis (1947), B.A., Hiram College; M.A., Chicago; Ph.D. Western Reserve. *Professor of Latin American Studies.*

Donald Derby (1947), B.A., Bowdoin; M.A., Ph.D., Harvard. *Professor of History. Vice-President: Dean of Faculties.*

John W. Devor (1956), B.A., M.A., Kansas; Ph.D., Chicago. *Professor of Education. Chairman, Department of Education.*

Harold A. Durfee (1955), Ph.B., Vermont; B.D., Yale; Ph.D., Columbia. *William Frazer McDowell Professor of Philosophy. Chairman, Department of Philosophy and Religion.*

Arthur A. Ekirch, Jr. (1947), B.A., Dartmouth; M.A., Ph.D., Columbia. *Professor of History.*

Marvin L. Fair (1958), B.A., Ohio University; M.A., Ph.D., Ohio State. *Professor of Transportation and Director of Transportation Program.*

John W. Frey (1957), B.S., Chicago; Ph.D., Wisconsin. *Professor of Geology.*

Ralph H. Gabriel (1958), B.A., M.A., Ph.D., Yale; M.A., Cambridge; Litt.D., Bucknell, Williams. *Professor of American Civilization.*

Dorothy D. Gondos (1947), B.A., Swarthmore; M.A., Ph.D., Pennsylvania. *Professor of History.*

Charles H. Goodman (1956), B.S., Wilson Teachers College; M.S., Ph.D., Pennsylvania State. *Professor of Government and Public Administration. Assistant Dean, School of Government and Public Administration.*

Robert E. Goostree (1953), B.A., Southwestern at Memphis; M.A., Ph.D., State University of Iowa. *Professor of Government and Public Administration. Assistant Dean, School of Government and Public Administration.*

Ernest S. Griffith (1957), B.A., L.H.D., Hamilton College; Litt.D., West Virginia Wesleyan College; D.Phil., Oxford. *Professor of International Relations. Dean, School of International Service.*

Chalmer A. Gross (1959), B.S., M.S., Illinois; Ph.D., Chicago. *Professor of Education.*

Joseph E. Hampton (1961), B.S., Florida; M.A., Ph.D., Ohio State. *Professor of Business Administration. Director, Accounting Program.*

Lowell H. Hattery (1948), B.A., Ohio University; Ph.D., American. *Professor of Government and Public Administration.*

Loy W. Henderson (1961), A.B., LL.D., Northwestern; LL.D., Arkansas; LL.D., Bates College; D.P.A., Southwestern; D.P.S., Denver. *Professor of International Relations. Director, Center for Diplomacy and Foreign Policy.*

Frances Holliday (1959), B.S., Northwest Missouri State Teachers College; M.A., Missouri; Ed.D., George Washington. *Professor of Education.*

Louis C. Hunter (1937), B.A., Knox; M.A., Ph.D., Harvard. *Professor of History.*

Anne Jensen (1930), B.A., Des Moines College; B.S. in L.S., Illinois. *University Librarian.*

Ralph C. John (1949), B.A., Berea; S.T.B., S.T.M., Boston University; Ph.D., American. *Professor of Philosophy and Religion. Dean, College of Arts and Sciences.*

Ole S. Johnson (1960), B.A., Jamestown College; M.B.A., Northwestern; Ph.D., Pittsburgh. *Professor of Business Administration. Director, Marketing Program.*

Philip M. Kaiser (1959), B.A., Wisconsin; B.A., M.A., Oxford. *Professor of International Labor Relations. Director, Program in Overseas Industrial and Labor Relations.*

Andrew S. Keck (1946), B.A., Williams; M.A., M.F.A., Princeton. *Professor of Art.*

Willett M. Kempton (1948), B.A., M.A., Wisconsin. *Professor of Journalism and Public Relations. Chairman, Department of Journalism and Public Relations.*

Ralph B. Kennard (1958) B.C. (C.E.), M.A., Columbia; Ph.D., Chicago. *Professor of Physics.*

Lawrence Krader (1954), B.S., College of the City of New York; Ph.D., Harvard. *Professor of Anthropology.*

Charles O. Lerche, Jr. (1959), A.B., Syracuse; M.A., Fletcher School of Law and Diplomacy; Ph.D., North Carolina. *Professor of International Relations.*

Michael Lindsay (Lord Lindsay of Birker) (1959), B.A., Balliol College, Oxford; M.A., Oxford. *Professor of International Relations.*

Charles Malik (1960), B.A., American University of Beirut; M.A., Ph.D., Harvard; Litt.D., Princeton, Millikan; LL.D., Georgetown, Syracuse, Columbia, Harvard, California, Yale, and others; Ph.D. (Hon.), Freiburg; and others. *University Professor of Philosophy and International Relations.*

Howe Martyn (1961), B.A., Toronto; M.A., Oxford. *Professor of Business Administration.*

James L. McLain (1934), B.A., George Washington; Certificate, Peabody Conservatory. *Professor of Music.*

Emmet V. Mittlebeeler (1954), B.A., LL.B., Louisville; M.A., Ph.D., Chicago. *Professor of Government and Public Administration.*

Harvey C. Moore (1951), B.A., Delaware; Ph.D., New Mexico. *Professor of Anthropology.*

Hugo J. Mueller (1959), Ph.D., Hamburg. *Professor of German and Linguistics. Chairman, Department of Languages and Linguistics.*

Simon Naidel (1948), B.S., College of the City of New York; M.A., Columbia; Ph.D., American. *Professor of Economics.*

Matthew F. Norton (1958), A.B., A.M., Ph.D., Columbia. *Professor of Geology. Chairman, Department of Earth Sciences.*

Nikos G. Photias (1949), B.A., Athens; M.B.A., Handelshochschule, Koenigsberg; M.Sc.Pol., Ph.D., Albertus University; LL.D., Friedrich Wilhelm University. *Professor of Business Administration and Foreign Trade. Assistant Dean: Ph.D. Program, School of Business Administration.*

Ralph L. Powell (1960), B.A., California; Certif, California College in China; Ph.D., Harvard. *Professor of Far Eastern Studies.*

Edgar S. Robinson (1953), B.A., Amherst; M.A., Ph.D., Columbia. *Professor of Government and Public Administration.*

Harold H. Roth (1946), B.A., College of the City of New York; M.A., Columbia; M.A., Ph.D., American. *Professor of Government and Public Administration.*

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